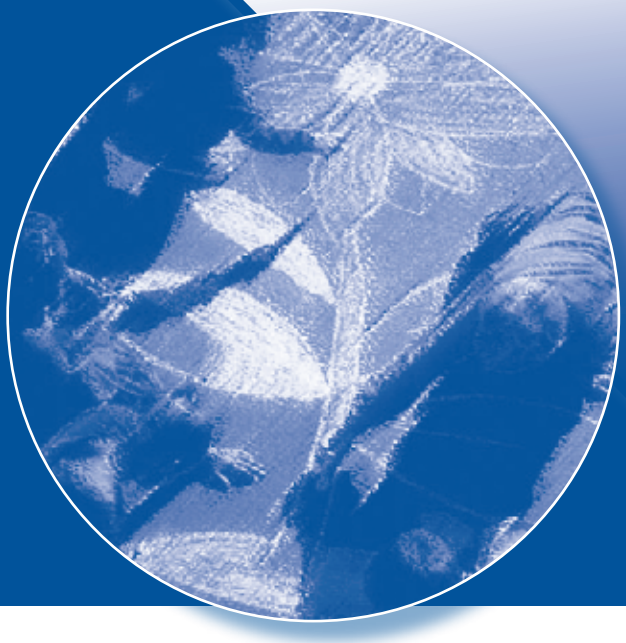
Child Deaths IN MICHIGAN 2005

Michigan Child Death
State Advisory Team
Fifth Annual
REPORT

A Report on Reviews conducted in 2002 and 2003

A report on the causes and trends of child deaths in Michigan based on findings from community-based Child Death Review Teams. With recomendations for policy and practice to prevent child deaths.



The Michigan Department of Human Services
Michigan Public Health Institute

STATE OF MICHIGAN
DEPARTMENT OF HUMAN SERVICES
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

MARIANNE UDOW
DIRECTOR

Summer, 2005

The Honorable Jennifer Granholm, Governor
Honorable Members of the Michigan Legislature

I am submitting this fifth annual report of child deaths in Michigan, in accordance with Public Act 167 of 1997. This report encompasses two years of data. In 2002 and 2003, nearly 1,200 community representatives in 69 counties met to conduct comprehensive reviews of 1,727 deaths. This report presents the findings from these review meetings. It also highlights trends in deaths to Michigan infants and children from 1990-2003.

In 2002 and 2003, 3,654 children ages 0-18 died in Michigan. While the numbers are significantly lower than in prior decades, the Michigan Child Death State Advisory Team believes that more than half of these deaths were preventable. They could have been prevented through various actions by parents or other caregivers, less risky behaviors by adolescents and/or earlier intervention taken by public support systems.

In addition to the large number of preventable child deaths, wide disparities in race and income persist. Black children died at a rate 2.1 times that of white children in 2003. This rate is even higher in deaths due to perinatal conditions, SIDS, fires, firearms and child abuse. Poor children are most often the victims.

Reducing preventable child deaths will require a combination of increased:
- education and information;
- community support structures; and,
- clarification and strengthening of certain laws and/or regulatory structures.

The Michigan Child Death State Advisory Team presents recommendations in this report based on their study of local review findings. These recommendations can improve the systems in our state that are designed to keep children healthy and protected. Many of these recommendations will require a long-term commitment to children, and funding that may not be possible until our state budget picture improves. As we continue our work, we hope this report furthers the awareness and action of state and local officials as well as the citizens of Michigan on how we can all work together to *keep kids alive*.

Thank you for your continued support in working to make Michigan a safe and healthy place for children.

Respectfully Submitted,

Marianne Udow

235 SOUTH GRAND AVENUE • P.O. BOX 30037 • LANSING, MICHIGAN 48909
www.michigan.gov • (517) 373-2035

ACKNOWLEDGEMENTS

We wish to acknowledge the dedication of the nearly twelve hundred volunteers from throughout Michigan who serve our state and the children of Michigan by serving on Child Death Review Teams. It is an act of courage to acknowledge that the death of a child is a community problem. Their willingness to step outside of their traditional professional roles, and examine all of the circumstances that lead to child deaths, and to seriously consider ways to prevent other deaths, has made this report possible.

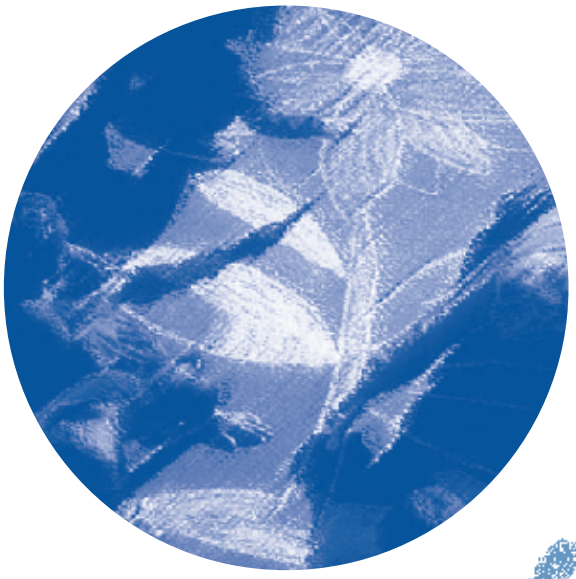
Many thanks to the local Child Death Review Team Coordinators, for volunteering their time to organize, facilitate and report on the findings of their reviews. Because of their commitment to the child death review process, this annual report is published.

The Michigan Department of Community Health, Office of the State Registrar, Division for Vital Records and Health Statistics has been especially helpful in providing the child mortality data and in helping us to better understand and interpret the statistics on child deaths.

The Michigan Department of Human Services provides the funding and oversight for the Child Death Review program, which is managed by contract with the Michigan Public Health Institute.

This report is also available at **www.michigan.gov/dhs** and **www.keepingkidsalive.org**.

Child Deaths IN MICHIGAN



Michigan Child Death State Advisory Team

FIFTH ANNUAL REPORT

Summer 2005

A report on reviews conducted in 2002 and 2003

MISSION

To understand **how** and **why children die** in Michigan,
in order to take **action** to **prevent** other **child deaths**.

Submitted to

The Honorable Jennifer Granholm, Governor, State of Michigan
The Honorable Ken Sikkema, Majority Leader, Michigan State Senate
The Honorable Craig DeRoche, Speaker of the House,
Michigan House of Representatives

Keeping Kids Alive©

MICHIGAN CHILD DEATH
STATE ADVISORY TEAM

CHAIR
TED FORREST
Manager
Children's Protective Services Program
Michigan Department of Human Services

MEMBERS

DAVID BLOCKER
Investigator
Office of the Children's Ombudsman

G. PAUL CLOUTIER
Native American Affairs Specialist
Office of Native American Affairs
Michigan Department of Human Services

SANDRA FRANK, JD
Executive Director
Tomorrow's Child

SHIRLEY MANN GRAY
Manager of Social Work Services
Children's Hospital of Michigan

VIRGINIA R. HARMON
Deputy Director, retired
Michigan Department of Community Health

BRIAN HUNTER, MD
Forensic Pathologist
Sparrow Health Systems

SGT. GREGORY A. JONES
Prevention Services Section
Michigan State Police

JOSEPH MARSHALL, MD
Professor, Department of OB/GYN
Michigan State University
College of Human Medicine

VINCENT J. PALUSCI, MD, FAAP
Associate Professor
Michigan State University

DOUGLAS M. PATERSON
Director
Bureau of Family, Maternal
and Child Health
Michigan Dept of Community Health

MARGARET PENNINGER, JD
Assistant Prosecutor
Berrien County

NANCY STIMSON
Detective Sergeant
Lapeer County Sheriff's Department

CRAIG SCHWARTZ
Inspector Commanding Officer
Major Crimes Division
Detroit Police Department

FRANK VANDERVORT, JD
Program Director
Michigan Child Welfare Law
Resource Center

JACQUELINE WOOD
Early Childhood Education Consultant
Michigan Department of Education

STEVE YAGER
Director
Office of Family Advocate
Michigan Department of Human Services

CHILD DEATH REVIEW
PROGRAM STAFF
2002 - 2004

Michigan Public Health Institute

* THERESA COVINGTON, MPH
Senior Program Director

* LORI CORTEVILLE, MS
Senior Data Analyst

* ROSEMARY FOURNIER, BSN
Fetal and Infant Mortality Review Coordinator

HEIDI HILLIARD, BS
Community Health Consultant

* SARA RICH, MPA
Community Health Consultant

LYNDA MEADE, MPA
Senior Project Coordinator

JANE PATERSON, MSW
Project Coordinator

* PATRICIA TACKITT, RN, MA
Urban Case Coordinator

J. ROBIN BELL
Community Health Consultant

MICHELLE VOLKER
Office Manager

Michigan Department of Human Services

TED FORREST
Manager
Children's Protective Services

LINDA SCHMIDT, MLPA, MSW
Department Analyst
Office of Family Advocate

*Funding for these positions supported in whole or in part by the Michigan Department of Community Health, the Centers for Disease Control and Prevention, the Wayne County Health Department, the Detroit Department of Health and Wellness Promotions and/or the U.S. Department of Health and Human Services, Health Resources and Services Administration.

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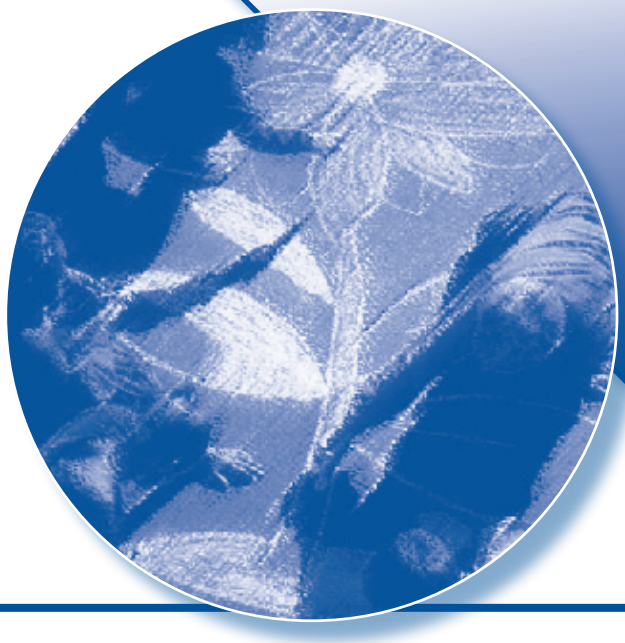


The Michigan Department of Human Services
Michigan Public Health Institute

Introduction

Children are not supposed to die. The death of a child is a profound loss not only to the child's parents and family, but also to the larger community. In order to reduce the numbers of these tragic losses, we must first understand how and why our children are dying.

The Child Death Review (CDR) process was implemented in Michigan in 1995 to do just that. CDR brings together a multidisciplinary group of people at the county level to conduct in-depth reviews of child deaths. These reviews identify the adverse factors that led to the death. The reviews motivate communities to take action to eliminate these factors in order to prevent similar tragedies in the future. The review process also aims at improving a community's response to child deaths, including investigations and provision of services to those affected by the death.

The Michigan Child Death State Advisory Team studies county review team findings. The State Team was authorized by Public Act 167 of 1997 to identify and make recommendations on policy and statutory changes pertaining to child fatalities and to guide statewide prevention, education and training efforts (Appendix B lists recommendations from past annual reports on which some type of action has been taken). It is required to publish these annual reports on child fatalities, based on the compilation of death data reported by the state registrar, as well as data received from the county level CDR teams across the state. This fifth annual report is the first to include two year's worth of data. In the years 2002 and 2003, county teams reviewed 1,727 child deaths.

This report is written in memory of all of the children in Michigan who have died. The Michigan Child Death State Advisory Team issues this report with the hope that it will encourage additional efforts, both in local communities and among our state leaders, to keep every child in Michigan safe and healthy.

Michigan Child Mortality Statistics

Child mortality statistics are the official count of the numbers of deaths based on death certificates of children ages 0-18 in Michigan. These statistics are tabulated by the Division for Vital Records and Health Statistics, Office of the State Registrar, at the Michigan Department of Community Health. In 2002, there were 1,823 children who died in Michigan. In 2003, the total was 1,831 children (a rate of 68.2 per 100,000 population). This represents a 32% reduction from 1990, when 2,693 children died (a rate of 103.6 per 100,000 population).

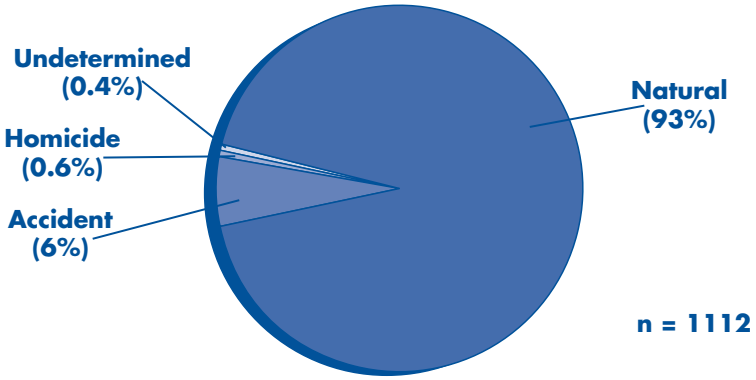
By manner*, natural deaths represented 72% of all deaths, accidents 21%, homicides 4%, suicides 3% and undetermined manner 1%. The leading causes of accidental deaths were motor vehicle related (56%), suffocation (16%), fires (10%) and drowning (10%).

Infant death due to low birth weight, prematurity or other adverse birth-related event is the leading cause** of death for all children, ages 0-18, representing 33% of all child deaths in 2002 and 2003. Other leading causes included congenital anomalies (13%), motor vehicle crashes (12%) and suffocation (5%).

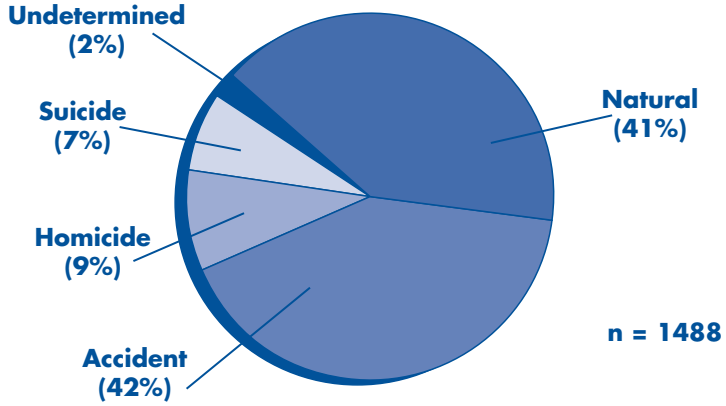
* Manner refers to the circumstances of the death. Within each of the five categories of manner, there can be many different causes of death.
** Cause refers to the actual disease, injury or complications that directly caused the death of the individual.

Overall, for 2002 and 2003, Michigan showed reductions from 2001 in the death rates due to SIDS, firearm accidents and firearm homicides. There were however, increases in the rates of deaths due to motor vehicle crashes, suffocations, fires and drownings. Death rates for non-firearm homicides and suicides remained roughly the same.

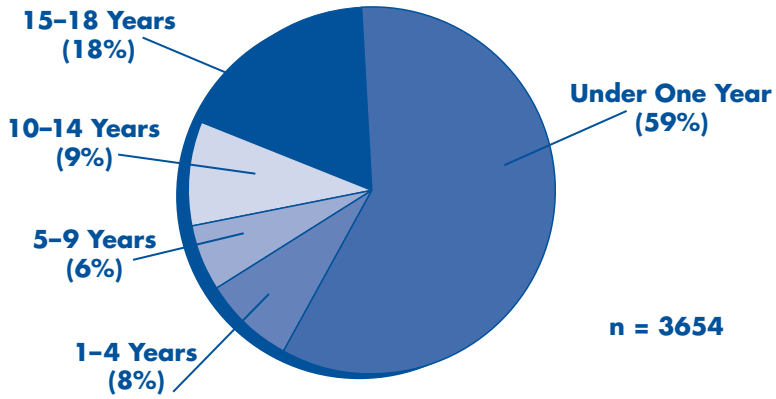
Michigan Infant Deaths by Manner, Ages < 1, 2003



Michigan Child Deaths by Manner, Ages 1–18, 2003



Michigan Child Deaths by Age of Death, Ages 0–18, 2002–2003



Michigan Infant Mortality Statistics

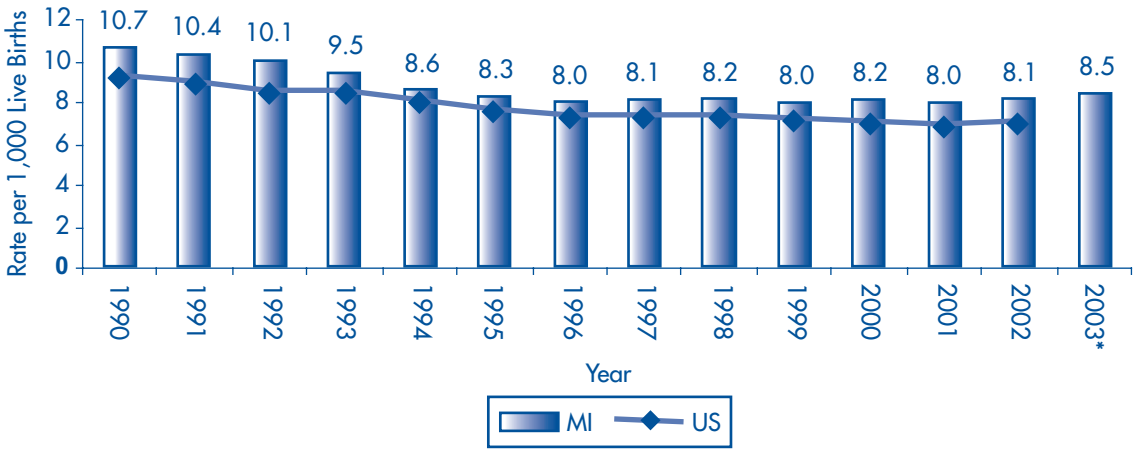
Michigan experienced 1,054 infant deaths in 2002 and 1,112 in 2003. While the birth rate increased one percent between 2002 and 2003, the infant death rate (of 8.5 per 1,000 live births) increased five percent. Still, the infant death rate is 21% less than it was in 1990. Unfortunately, Michigan continues to have higher infant death rates than the national average. The leading causes of infant death in Michigan are perinatal conditions, including low birth weight and prematurity, congenital anomalies, suffocation and Sudden Infant Death Syndrome (SIDS).

The increase in the infant death rate in 2003 is due to an increase in deaths in the neonatal period (first 28 days of life). Of the deaths to infants in 2003, 69% occurred during the neonatal period. The postneonatal death rate (29 to 364 days of age) remained the same from 2002 to 2003.

While the decline in infant mortality since 1990 was similar for black infants (19%) and white infants (15%), substantial racial disparities remain. In 2003, black infants had a death rate 2.6 times that of white infants, which is a larger gap than the disparities that exist for all children aged 0-18 years.

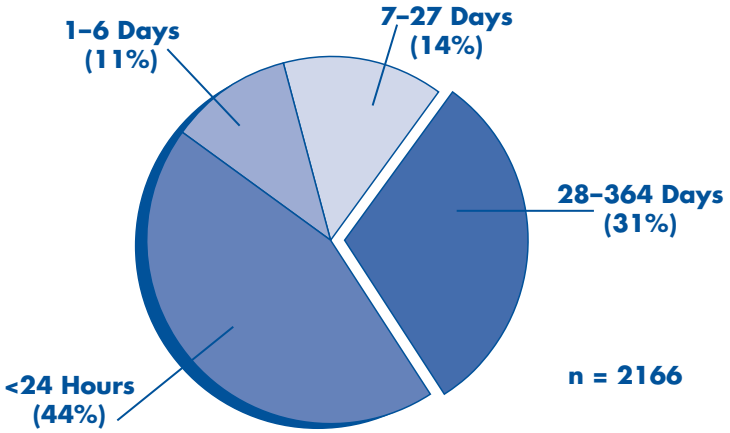
Prematurity and low birth weight continue to be the greatest predictors of infant mortality. Preterm refers to births occurring before the 37th week of pregnancy, and low birth weight infants are those weighing less than 2500 grams or 5 1/2 pounds at birth. While vast improvements have been made in treating these infants, preventing babies from being born too early and too small is still a great challenge.

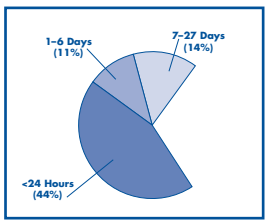
Michigan and United States Infant Death Rates, Ages 0-1, 1990-2003*



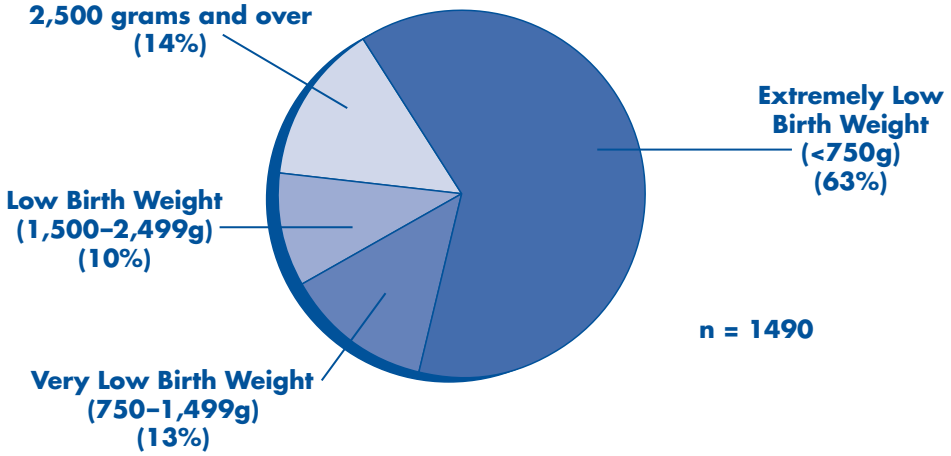
* U.S. infant mortality rates for 2003 are not available.

Michigan Infant Deaths by Age of Death, 2002–2003





Michigan Neonatal Infant Deaths (<28 days) by Birth Weight, 2002–2003



Michigan Child Death Review Statistics

To better understand the child deaths represented by state mortality statistics, nearly 1,200 volunteers from over 20 different disciplines participate in the CDR process at the county level. For 2002 and 2003, they found that had an individual, agency or the community done something differently, over half of the child deaths reviewed (55%) may have been prevented. The teams used their findings to identify and implement changes in local policy, services and programs in order to prevent other deaths, and to better respond to them as a community. Sixty-nine Michigan counties conducted comprehensive reviews of 1,727 child deaths in 2002 and 2003.*

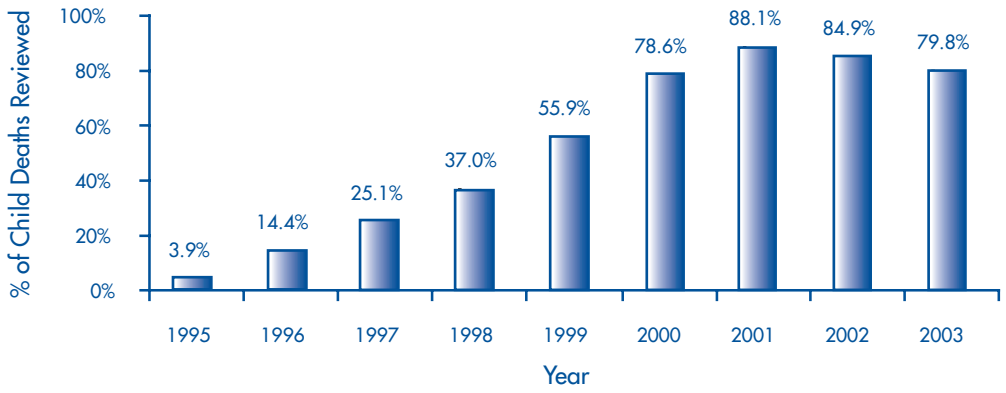
Number of Michigan Child Deaths Reviewed by Year of Review

Year of Review	Number
1995	3
1996	130
1997	201
1998	492
1999	601
2000	807
2001	885
2002	899
2003	828
Total	**4,846**

* Two types of data are used throughout this report. The reader is cautioned not to make a one-to-one comparison between the mortality statistics from death certificates and findings from child death reviews.

Many local teams attempt to review all manners and causes of child deaths. In 2002 and 2003, teams reviewed 765 natural deaths, 636 accidents, 135 homicides, 85 suicides and 106 deaths of undetermined manner. A much higher percentage of unintentional injury and violent deaths have been reviewed than of natural deaths. Since prevention efforts most often focus on injury and violence, it is important to capture details on as many of these types of deaths as possible.

Percent of Non-Natural Child Deaths in Michigan Reviewed by Local CDR Teams*



* Child death reviews conducted in 2004 will contain some deaths that occurred in previous years.

This report summarizes the findings of the local teams and presents recommendations based on those findings to the Governor and the Michigan Legislature. The State Advisory Team recognizes that current state budget limitations may require that some recommendations be implemented in future years, and trusts that future state budget deliberations will consider these proposed enhancements to state services and programs. The following sections describe specific findings and recommendations related to the review process and by cause of death.

The Child Death Review Process

There is no legislative mandate requiring participation in Child Death Review, yet nearly 1,200 volunteers in 69 counties conducted 1,727 reviews of deaths to children in 2002 and 2003. Of the 14 remaining counties that did not conduct reviews in these two years, half had five or less child deaths occur in that time frame.

CDR teams are required by statute to have the following core membership:

- Public Health Department
- Law Enforcement
- Medical Examiner's Office
- Department of Human Services
- County Prosecutor's Office

In addition, most teams have much broader representation, which often include the following:

- Community Mental Health
- Emergency Medical Services
- Schools
- Hospitals and Physicians
- Courts
- Other Community Providers

The teams attempt to review all deaths of children under the age of 19, with the exception of the largest counties in Michigan (Genesee, Ingham, Kent, Macomb, Muskegon, Oakland and Wayne). Because of their high numbers of child deaths, these teams select for review cases that fall under the jurisdiction of the medical examiner. These include sudden and unexpected deaths, accidents, homicides and suicides.

An effective review begins with all participants sharing relevant information from their agencies regarding the circumstances surrounding the child's death. Team members ask for clarification as needed. The team discusses each death, considering the following questions:

- Is the investigation comprehensive and complete?
- Are there services we should be providing?
- What were the risk factors involved in the death?
- Are there agency policies and practices that should be changed?
- What action are we going to take locally to prevent another death?
- Who should take the lead to implement our recommendations?
- What recommendations should we make to the state?

Teams were proactive in translating their findings to action. Teams proposed 618 prevention initiatives and took action to implement 339 of these at the time that they submitted their reports. However, many teams noted that they were unable to implement their initiative ideas due to funding constraints.

Recommendations Regarding the CDR Process

1. The Michigan Legislature: Ensure continued and enhanced resources to support the comprehensive review of Child Death Review (CDR) findings and trends, enhance local prevention efforts and training for CDR team members.

2. The Michigan Department of Community Health: Consider establishment of a state-based regional medical examiner system.

Special Issues in Child Deaths

This annual report presents mortality data and CDR team findings based on cause of death. Most of these causes are fairly easily categorized: motor vehicle crashes, drownings, etc. There are, however, two types of child deaths that currently pose unique challenges. This section highlights the special issues involved in deaths to infants in sleep environments and child abuse and neglect fatalities.

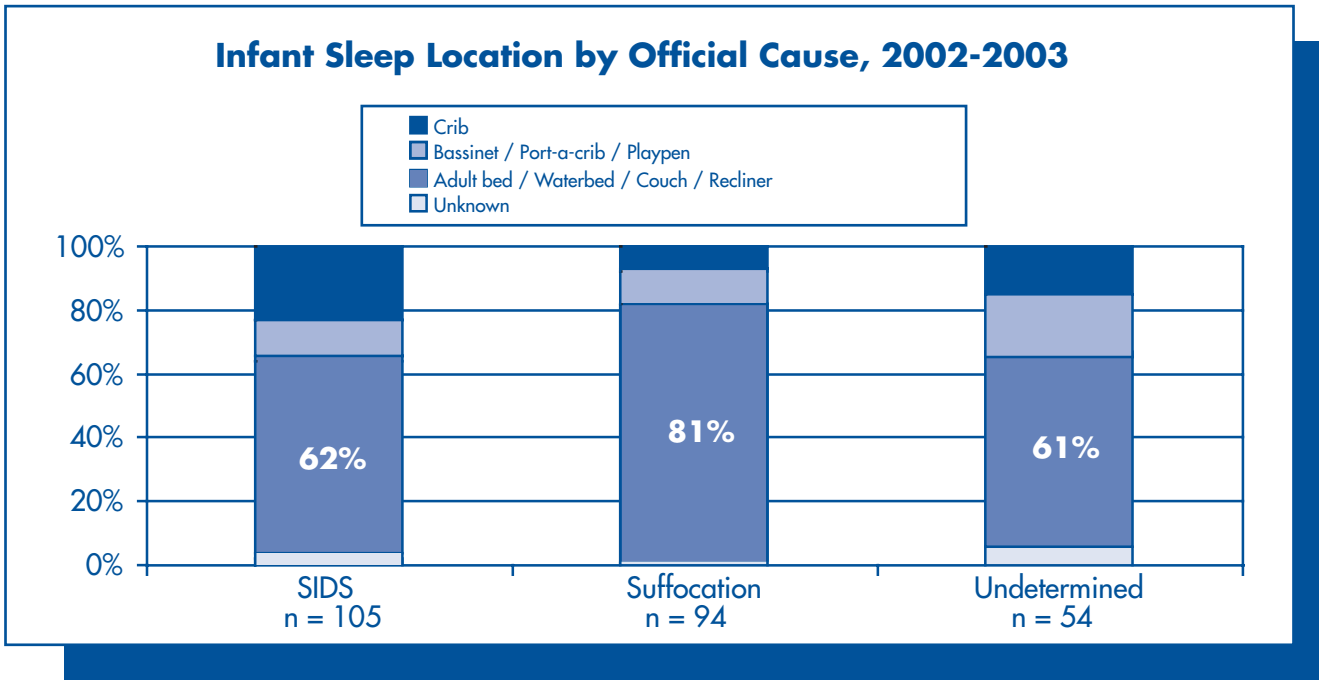
Infant Deaths in Sleep Environments

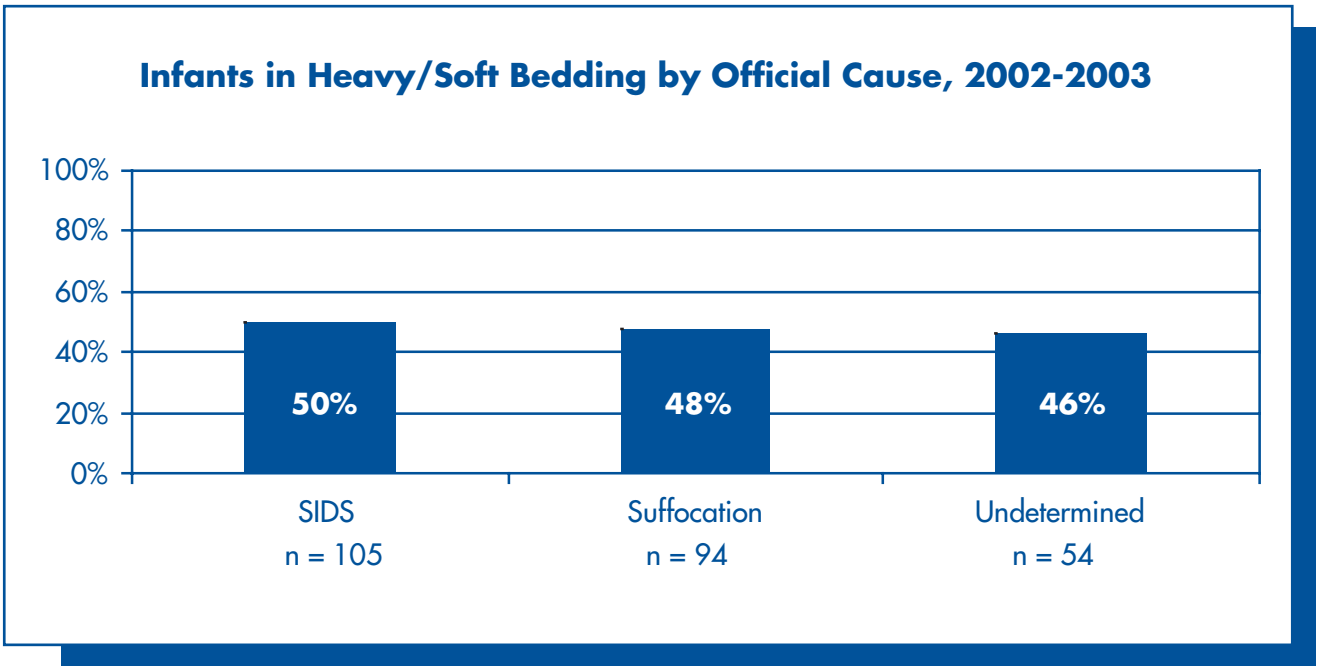
CDR teams reviewed the deaths of 253 infants in 2002 and 2003 that were in a sleep environment at the time of their deaths. A national debate is ongoing in medical, legal and human services circles regarding the diagnoses that are assigned to infants who die suddenly and unexpectedly in sleep situations. The debate relates to how to categorize these deaths when the scene investigation reveals the presence of risk factors such as unsafe infant sleep position and sleep location, unsafe infant bedding and bed-sharing: is the death due to SIDS, accidental suffocation, or should the manner and cause be classified as undetermined?

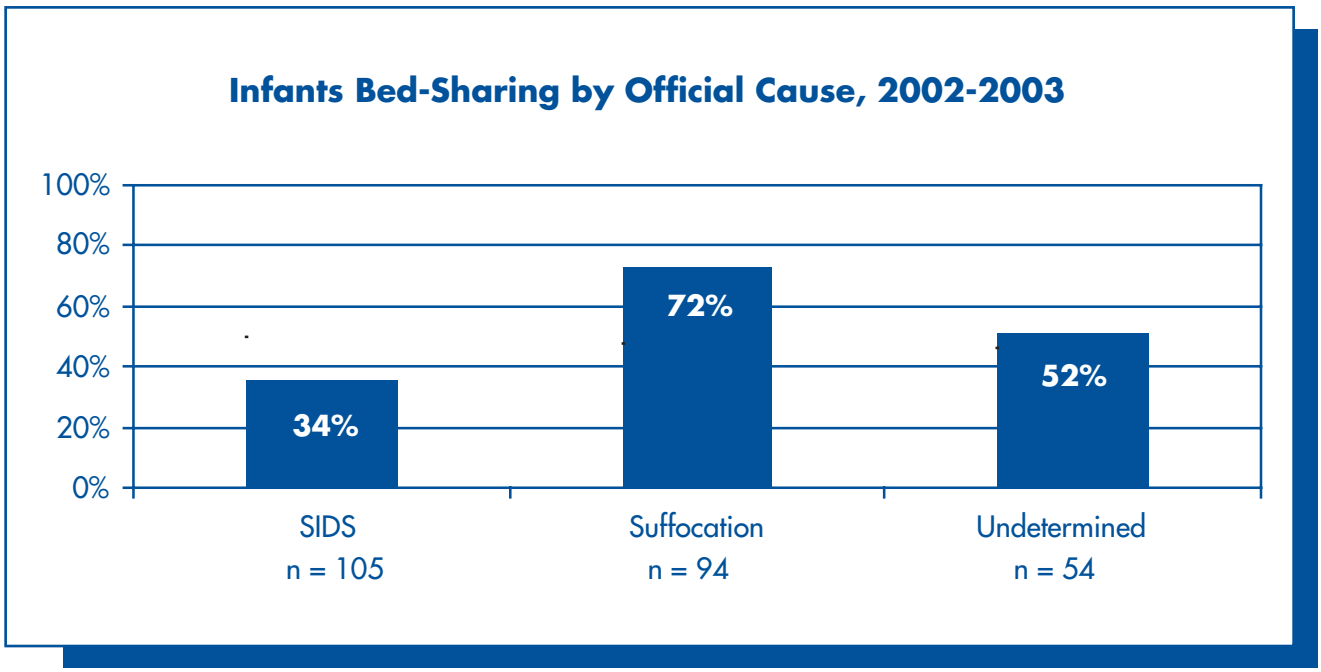
From a prevention perspective, how these deaths should be classified is eclipsed by the fact that these infants share the same or similar risk factors in their sleep environments.

In analyzing the reviews of 105 SIDS deaths, 94 infant suffocations in unsafe sleep environments and 54 infant deaths of undetermined manner (and often cause) that occurred in sleep situations:

- Despite the fact that the Consumer Product Safety Commission (CPSC) recommends that the safest place for a baby to sleep is in a crib, 84% of these 253 infants were not sleeping in cribs at the time of their deaths.
- Contrary to the CPSC's recommendations that parents and caregivers remove pillows, quilts, comforters, sheepskins, stuffed toys and other soft products from the crib and use a sleep sack as an alternative to blankets, 48% of the infants were in heavy or soft bedding at the time of their deaths.
- Over half (52%) were sharing a sleep surface with one or more persons at the time of their deaths.







Since most of the risk factors involved in infant sleeping deaths are easily modifiable, these high numbers of deaths can only be seen as unacceptable, and should serve as a call to action at every level. A state level task force has been studying these issues and is currently in the implementation phase of a statewide safe sleep campaign.

While discussions will no doubt continue regarding the diagnosis of these types of deaths, it is important to recognize the tremendous impact of unsafe sleeping environments. Reducing the numbers of these tragedies will not occur without addressing the risk factors involved.

Under-Counting of Child Abuse and Neglect

In Michigan as well as nationally, the actual number of child abuse and neglect deaths is estimated to be much higher than what is reported by death certificate data. A study published in Pediatrics (2002) estimated that about half of child abuse and neglect deaths are not coded consistently on death certificates. Neglect was identified as the most under-reported form of fatal maltreatment. There are a number of explanations for the under-reporting of fatal child abuse and neglect, including:

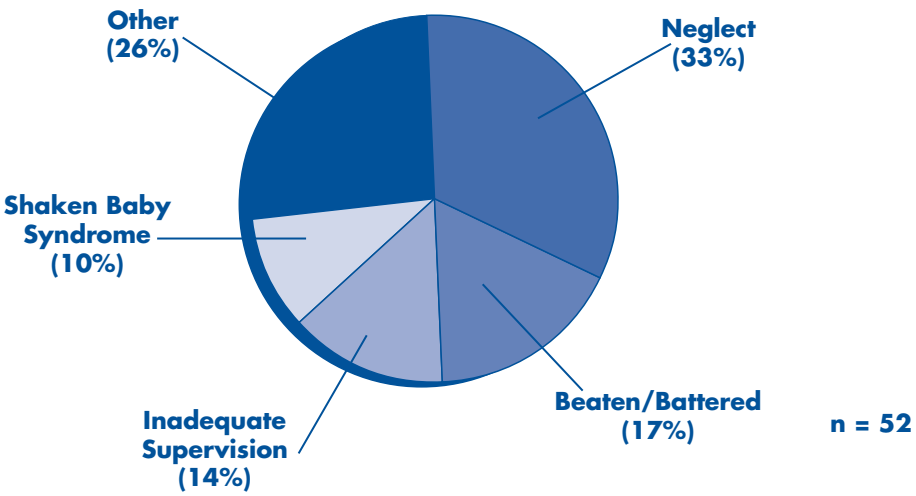
- Physical abuse deaths may be coded as manner homicide, but the cause is not coded specifically as child abuse because the perpetrator is not listed on the death certificate.
- Neglect deaths may be coded as manner natural, for example due to malnutrition, hyperthermia or infectious disease.
- Some deaths may be coded as accidents, even though grossly negligent acts (or failures to act) on the part of caregivers contributed to the death.
- Deaths may have been poorly investigated and the child abuse or neglect went undetected.

In coordination with CDR, Michigan has taken a number of steps to develop a system to better identify all child abuse and neglect deaths. These steps included:

1. *The Michigan Child Maltreatment Surveillance Project*: In 2001, Michigan was one of five states awarded a grant by the Centers for Disease Control and Prevention (CDC) to develop a better method to count fatal child maltreatment. Using data from four different disciplines that collect such information, the project found that:
    - The CDR process identified the largest number of both abuse and neglect deaths, followed by the Michigan Department of Human Services (MDHS) reports.
    - Crime and homicide reports identify most abuse deaths, but no neglect.
    - Death certificates were the least accurate method for determining if abuse or neglect was involved in the fatality.
    - Cases categorized as accidental on the death certificate accounted for over 60% of the neglect deaths identified by the project.
    - An in-depth review of cases from all four sources is the best method to identify all deaths.
    - The rate of maltreatment fatality was higher for children living below 185% of the poverty line.
2. *The MDHS Citizen Review Panel on Child Fatalities*: In 1999, the federally mandated Citizen Review Panel (CRP) on Child Fatalities was formed in Michigan as a sub-committee of the Child Death State Advisory Team. The CRP meets quarterly to thoroughly examine cases of child abuse and neglect. They conduct an in-depth case review of each fatality, and make recommendations in a formal written report to the director of MDHS. It was through the work of the CRP that MDHS was able to identify the total of 52 child maltreatment deaths that it reported to the National Child Abuse and Neglect Data System (NCANDS) for 2002, as opposed to the 12 that were classified as child abuse or neglect on death certificates. Of those 52 deaths:
    - Over half the victims (54%) were under the age of one
    - Black children were over-represented as victims (54%)
    - Neglect was the most frequent cause of death (33%)
    - Mothers were the most frequent category of perpetrator (52%)

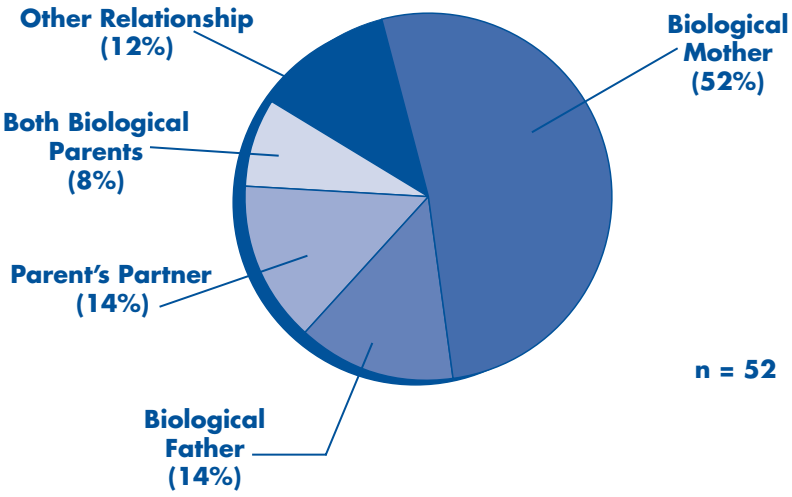
Citizen Review Panel on Child Fatalities

Michigan Child Abuse and Neglect Deaths Identified by Cause of Death, 2002



Citizen Review Panel on Child Fatalities

Michigan Child Abuse and Neglect Deaths Identified by Person Who Inflicted Injury, 2002



3. *Electronic Report of Minor's Death*: In November of 2004, DHS established a policy regarding reporting the deaths of children. These reports notify key DHS administrators of the fatality and the circumstances surrounding it, so that they may ensure that required agency procedures have been initiated. The new Child Death web report was developed to record a child fatality that is reported by county DHS offices for children involved with Children's Protective Services (CPS), Foster Care, Juvenile Justice Foster Care and Adoption. Also, the Office of Child and Adult Licensing (OCAL) is required to report all deaths occurring in DHS-related child care homes, facilities and camps. This report provides MDHS with the capability to correctly identify child maltreatment fatalities in CPS data systems without extensive case reading. It also allows for the analysis of these cases across any data variable available. Over time, as deaths are recorded in this manner, trends will be easier to identify. Furthermore, appropriate analysis of these data trends will assist MDHS in developing prevention initiatives for children and families.

Child Mortality and Death Review Findings for Specific Causes of Death

Natural Infant Deaths Excluding SIDS, Ages 0-1

Key Findings

In 2002 and 2003, there were 1,870 Michigan infants ages 0-1 who died of natural causes, excluding SIDS. This represents a 25% decrease from 1,324 deaths in 1990 to 987 deaths in 2003. However, there is a significant increase from 883 deaths in 2002 to 987 death in 2003. CDR teams reviewed 430 natural infant deaths excluding SIDS in that time period. The medical complexities of these deaths often make it difficult for the teams to review them. However, the specialized Fetal and Infant Mortality Review (FIMR) process, currently existing in 14 Michigan communities, effectively reviews these types of deaths. FIMR findings are discussed in a later section.

Of the 430 cases reviewed, teams found that almost half of the babies died within 48 hours of birth. Prematurity and low birth weight were the most frequent causes.

Cigarette smoking during pregnancy is a major risk factor for low birth weight, intrauterine growth retardation and infant death. In more than 16% of the cases, the mother admitted to smoking during pregnancy.

Recommendations Regarding Natural Infant Deaths Excluding SIDS

1. The Michigan Department of Community Health: Expand and continue technical and financial support to Fetal and Infant Mortality Review Programs in communities with high infant mortality rates and racial disparities.

2. The Michigan Department of Community Health: Promote the Grief and Bereavement services through the SIDS and Other Infant Death Program to medical examiners, hospitals, local public health departments, Fetal and Infant Mortality Review teams and local Child Death Review teams.

3. The Michigan Legislature: Continue to provide Medicaid coverage for family planning services to include all women up to 185% of the poverty level.

4. The Michigan Surgeon General: Work with medical practitioners, medical organizations and insurance companies to ensure:

   a. An increase in the number of providers that discuss pregnancy intendedness at every visit with all females of childbearing age.

b. Providers offer preconception counseling to all females of childbearing age.

c. Adequate numbers of providers that accept Medicaid patients, in reasonable proximity to those patient populations.

d. Early access to and continuity of care for all pregnant females.

e. Compliance with state laws that require physicians to offer pregnant females client-centered counseling and voluntary HIV testing.

f. Screening for all pregnant females and new parents for domestic violence and substance abuse.

g. Redesign of the Maternal Support Services and Infant Support Services programs to:

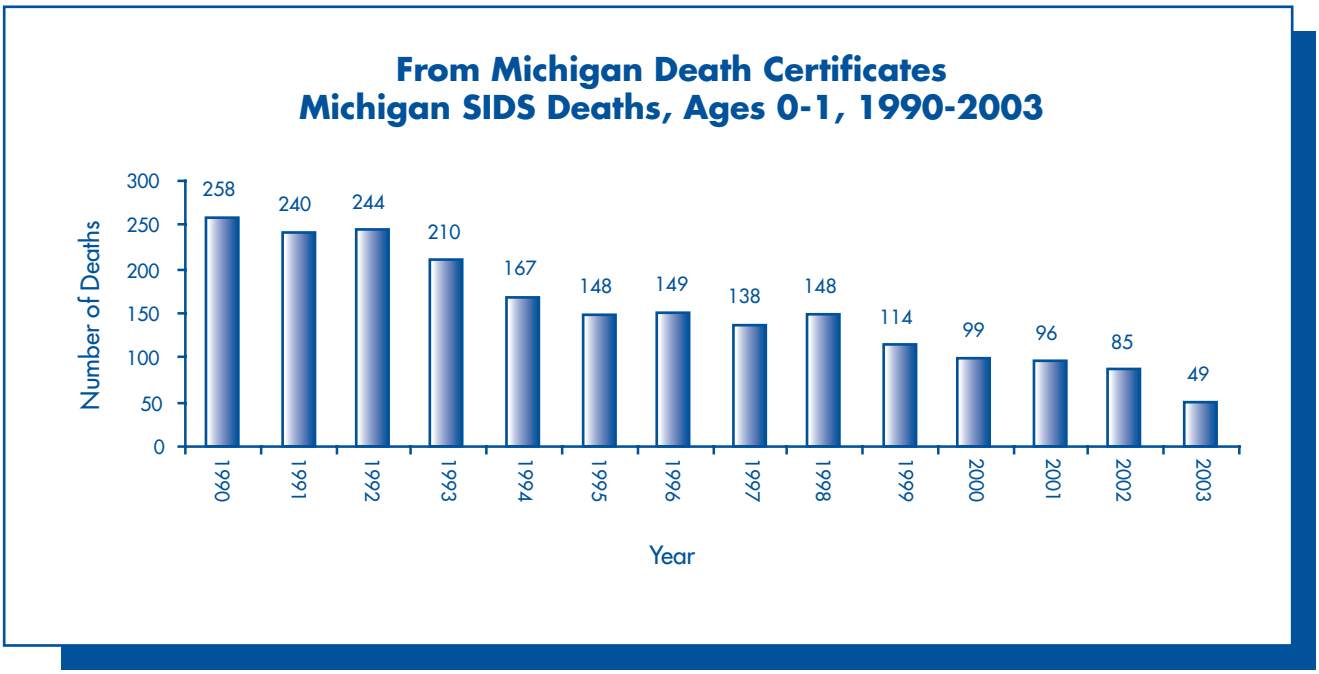
- Improve identification and increase referrals of high risk persons;
- Assure a quality assessment is performed;
- Assure services are designed to specifically reduce risk; and
- Design reimbursement to reinforce the likelihood of improved birth outcomes.

h. Providers offer referrals to smoking cessation services for pregnant and new parents.

Natural - Sudden Infant Death Syndrome

Key Findings

In 2002 and 2003, there were 134 Michigan infant deaths that were attributed to SIDS. This represents an 81% decrease from 258 deaths in 1990 to 49 deaths in 2003. CDR teams reviewed 104 SIDS deaths in 2002 and 2003.



SIDS is defined as the sudden death of an infant under one year of age which remains unexplained after completion of an autopsy, a thorough death scene investigation and a review of the infant's medical history. If

these three criteria are not met, a SIDS diagnosis should not be made. Teams reported that in 96 of the cases, death scene investigations were conducted. In half of the cases, medical records were known to have been reviewed by the medical examiner.

Sixty-three percent of SIDS victims were male and 37% were female. About 89% of these infants died before six months of age.

In only eight of the 104 SIDS deaths reviewed was the baby sleeping in a crib, alone and on his or her back. The other 96 babies were sleeping in unsafe positions or places. Seventy-seven percent of the babies were not sleeping in cribs; 67% of the infants were sleeping on their stomachs or sides and 21% were sharing a bed with other children or adults. In nearly half the cases, the baby was in a sleep environment that contained heavy bedding.

Recommendations Regarding SIDS Deaths

1. The prosecuting attorney, law enforcement agencies, medical examiner and the Department of Human Services in every county: Upon the promulgation of rules by the Michigan Department of Community Health per Public Act 179 of 2004, jointly adopt and implement the child death scene investigation protocols.

2. The Children's Cabinet: Collaborate among member agencies and partner with the Michigan Department of Community Health's SIDS and Other Infant Death Program and Michigan professional associations to implement a statewide campaign promoting safe infant sleep environments consistent with the recommendations of the American Academy of Pediatrics.

3. The Michigan Department of Community Health: Strengthen the prenatal smoking cessation program, especially as it relates to Sudden Infant Death Syndrome.

All Causes of Natural Child Deaths, Ages 1-18

Key Findings

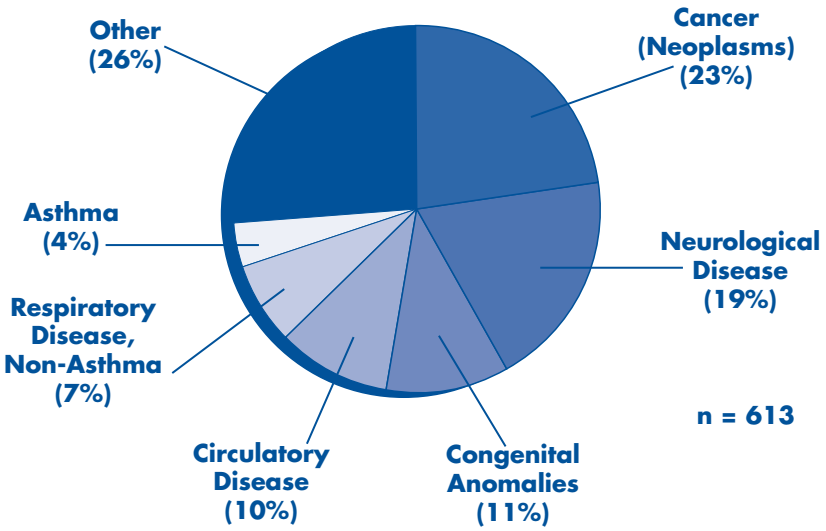
In 2002 and 2003, there were 613 Michigan children over age one who died due to natural causes. This represents a 27% decrease from 397 deaths in 1990 to 289 deaths in 2003. CDR teams reviewed 230 natural deaths to children over age one in 2002 and 2003.

Asthma or other respiratory illness, congenital anomalies, cerebral and cardiac conditions were the top causes of death in this category. Of the 23 asthma deaths reviewed, over half of the children were ages 10-14.

The children (ages 1-18) were receiving Children's Special Health Care Services from their local health department in 43 cases of the 230 cases of child death due to natural causes reviewed (19%).

From Michigan Death Certificates

Michigan Natural Child Deaths 1–18 by Cause of Death, 2002–2003



Recommendation Regarding Natural Deaths to Children Ages 1-18

1. The Michigan Department of Community Health and the Michigan Department of Human Services: Support a partnership and the sharing of information between the Michigan Child Death Review Program and the Michigan Asthma Coalition to improve the diagnosis, treatment and prevention of childhood asthma.

Accidental - Motor Vehicle

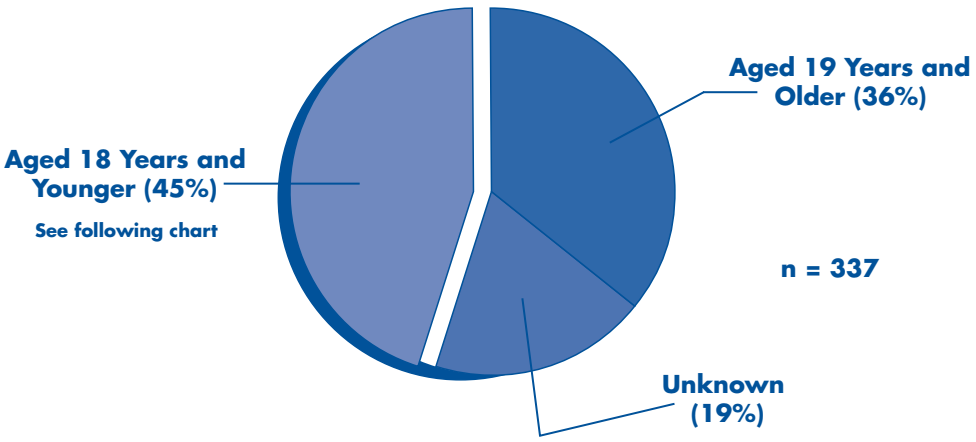
Key Findings

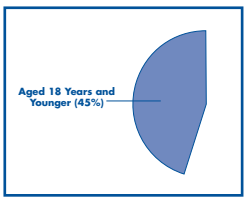
In 2002 and 2003, 432 Michigan children died in motor vehicle crashes. This represents a 21% decrease from 272 deaths in 1990 to 215 deaths in 2003. CDR teams reviewed 337 such deaths in 2002 and 2003.

Teams found that drivers 16-18 years old were nearly three times as likely to be at fault in the fatal crashes reviewed than the next most frequent at-fault age group (22-35).

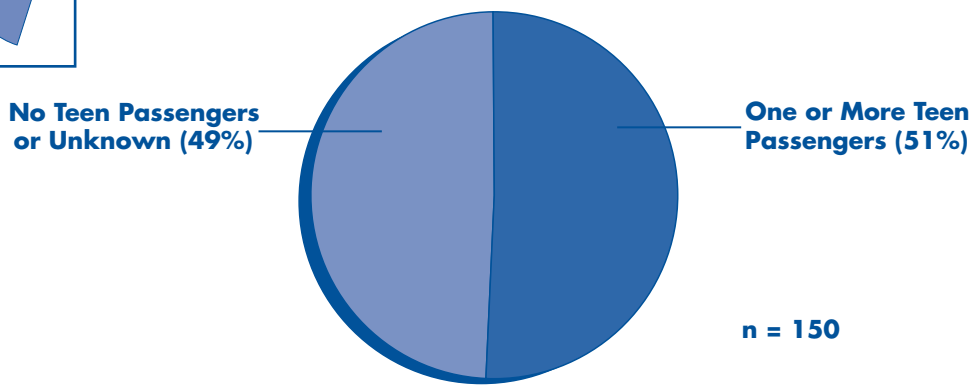
The number of teen passengers in a vehicle at the time of a crash is a major risk factor for young drivers. One or more teen passengers were in the vehicle in half of the fatalities reviewed where the driver at fault was 18 years of age or under.

Accidental Motor Vehicle Child Deaths
Reviewed by Driver at Fault, 2002–2003





Accidental Motor Vehicle Child Deaths
<18 Year Old Driver at Fault
Reviewed by Teen Passengers, 2002–2003



Some teams have identified lack of experience driving in poor weather conditions and on gravel roads as being risk factors for new teen drivers. When weather conditions were noted: for normal road conditions, drivers less than 18 were at fault in 39% of the cases reviewed; in poor weather (ice/snow, wet or foggy), drivers less than 18 were at fault 59% of the time. Even more striking, when the crash occurred on gravel roads, drivers less than 18 were at fault 87% of the time.

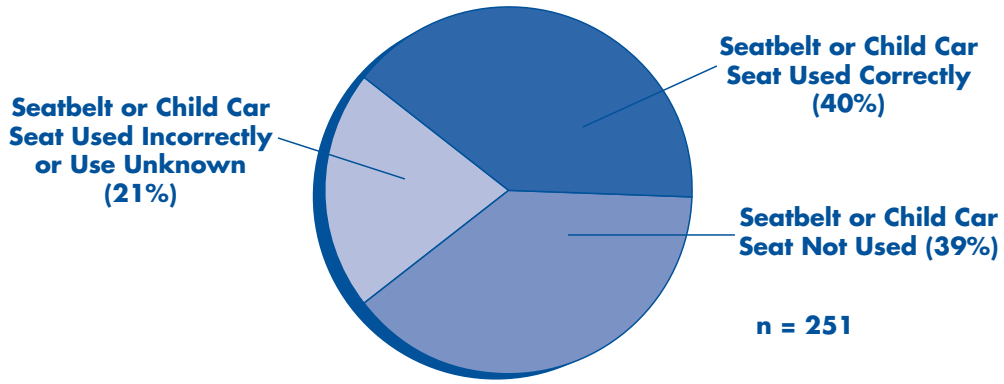
Of the 14 bicycle-related crashes, 13 children were known to have been not wearing a bike helmet at the time, and in the other case, this item was left unanswered.

Children that are killed as pedestrians are not always toddlers and young children who dart out into traffic. Local teams found that the majority of the pedestrian cases reviewed were to kids ages 10 and over (58%).

Eight children were killed in ATV-related crashes. Two deaths were to children between the ages of 12 and 15, where law requires the visual supervision of an adult, but neither was in sight of a supervising adult. Another two deaths were to children under the age of 10, who are not supposed to operate such vehicles.

An appropriate restraint (whether seat belt or child car seat) was used correctly in about 40% of the cases of child deaths in motor vehicle crashes.

Accidental Motor Vehicle Child Deaths Reviewed by Restraint Use, 2002–2003



Recommendations Regarding Motor Vehicle Deaths to Children

1. The Michigan Legislature: Amend the current graduated licensing law to place limits on the number of teen passengers allowed in vehicles driven by teens with Level Two Intermediate Licenses. This limitation should apply at all times of the day, and without an exception allowed for written parental permission.

2. The Michigan Department of State: Partner with the Office of Highway Safety Planning and the Michigan Department of Community Health to conduct a comprehensive review and revision of driver education programs throughout the state to ensure that the curricula adequately address all high-risk driving situations.

3. The Michigan Department of Education: Through the Great Parents, Great Start program, work with Michigan SAFE KIDS to develop a system for distributing child safety seat information to parents, coordinated through the local Intermediate School Districts.

4. The Michigan Legislature: Amend the Michigan Child Passenger law to:

   a. Require the use of booster seats to protect children ages 4-8 and under 4'9";

   b. Increase fines and points for those not following the law; and

   c. Increase public awareness and education programs.

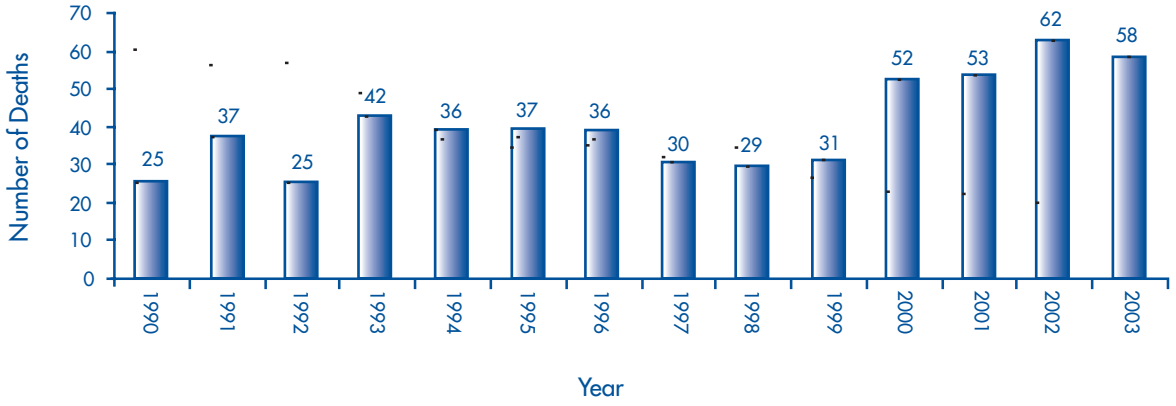
5. The Prosecuting Attorneys Association of Michigan: Educate all law enforcement agencies through their Police Law Bulletin, regarding Public Act 451 of 1994 (MCL 324, sections 81129 and 81130); specifically, regarding the restrictions on children younger than 16 in the operation of all off-road vehicles, and encourage the prosecution of cases wherein this law was violated.

Accidental - Suffocation and Strangulation

Key Findings

In 2002 and 2003, there were 120 Michigan children who died due to accidental suffocation or strangulation. The rate of infant death due to accidental suffocation or strangulation has increased 63% from 18 in 1990 to 49 in 2003. CDR teams reviewed 117 accidental suffocation deaths to children ages 0-18 in 2002 and 2003.

From Michigan Death Certificates
Michigan Child Deaths from Accidental Suffocation, 2002-2003



The vast majority of all suffocation deaths reviewed were to infants less than one year of age (85%).

In 57 of the 117 cases reviewed, the child suffocated when another person rolled over onto them during sleep. Sleeping locations in these incidents were: 39 in adult beds, 10 on couches, three in reclining chairs, two on futons, one on an air mattress and in the other two cases, information about sleeping location was not given.

Twelve of the 15 reviews of children who died when they became wedged between two objects were of infants in sleep environments. Eight of these 12 were placed on adult beds to sleep and subsequently became wedged (e.g., between the mattress and the wall, between the mattress and the headboard, etc.).

Twenty-two cases were reviewed in which infants suffocated in their bedding. Most of these babies (82%) were three months of age or younger.

Recommendations Regarding Suffocation and Strangulation Deaths to Children
[Note: 1 and 2 are the same as in the SIDS section.]

1. The prosecuting attorney, law enforcement agencies, medical examiner and the Department of Human Services in every county: Upon the promulgation of rules by the Michigan Department of Community Health per Public Act 179 of 2004, jointly adopt and implement the child death scene investigation protocols.

2. The Children's Cabinet: Collaborate among member agencies and partner with the Michigan Department of Community Health's SIDS and Other Infant Death Program and Michigan professional associations to implement a statewide campaign promoting safe infant sleep environments consistent with the recommendations of the American Academy of Pediatrics.

3. The Michigan Chapter of the American Academy of Pediatrics: Identify a partner with whom to host a "Train the Trainer" event for pediatricians around the state in order to ensure the dissemination of consistent safe infant sleep messages to parents.

Accidental – Fire and Burn

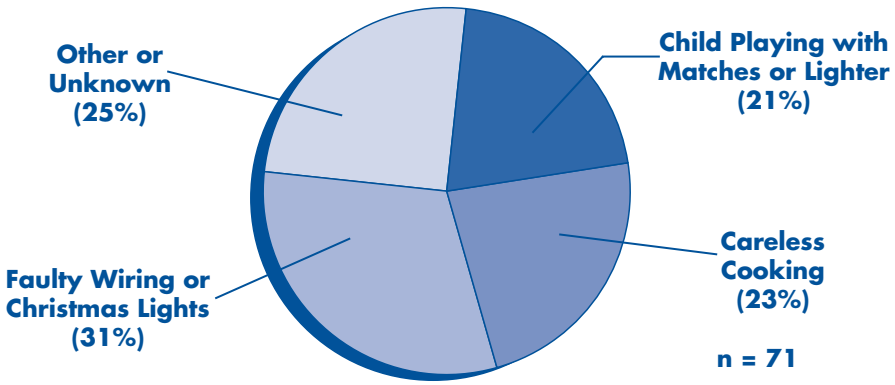
Key Findings

In 2002 and 2003, 75 Michigan children died in accidental fires. The number of fire deaths can vary greatly from year to year, since some fires can involve multiple child victims; the 2003 number is the 5th lowest since 1990. CDR teams reviewed 71 accidental fire deaths in 2002 and 2003. Almost half of the victims were under five years of age.

Local teams determined the socio-economic status of the child fire victims to be "low" in 79% of the cases reviewed.

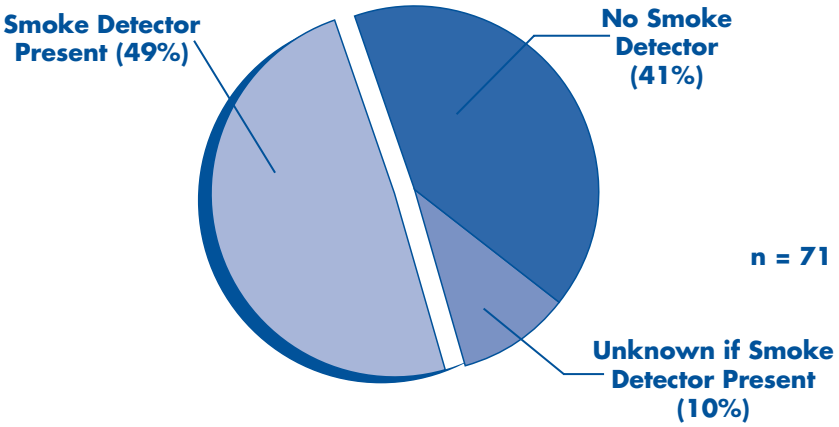
Teams found that children playing with lighters, matches or candles, careless cooking and poor wiring were the top causes of the fires.

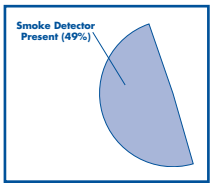
Accidental Fire Child Deaths
Reviewed by Source of Fire, 2002–2003



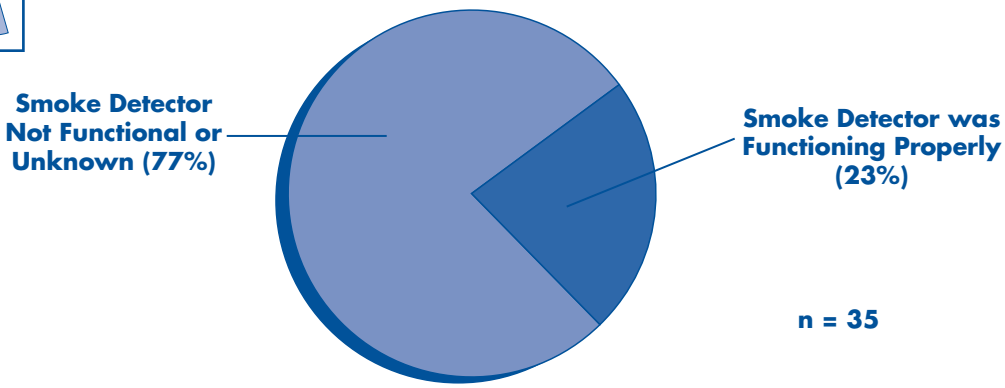
In nearly half the cases (35), it was noted that smoke alarms were present in the home at the time of the fire. However, in only nine cases did the alarms function properly. This was usually because they did not contain working batteries at the time.

Accidental Fire Child Deaths
Reviewed by Smoke Detector Present, 2002–2003





Accidental Fire Child Deaths
Reviewed by Smoke Detector Functional, 2002–2003



When answering whether they believed supervision to have been adequate at the time of the fire, the teams answered "no" or "unsure" in 61% of the fire deaths reviewed.

Recommendations Regarding Fire Deaths to Children

1. The Michigan Department of Community Health, the Michigan State Police and the Michigan Department of Labor and Economic Growth: Campaign to promote local efforts to increase the number of lithium-powered or hard-wired smoke detectors and sprinkler systems in residential dwellings.

2. The Michigan Department of Education and the Michigan Department of Human Services: Ensure that all school districts and child care organizations offer fire safety education for young children, especially in preschool and child care settings.

Accidental - Drowning

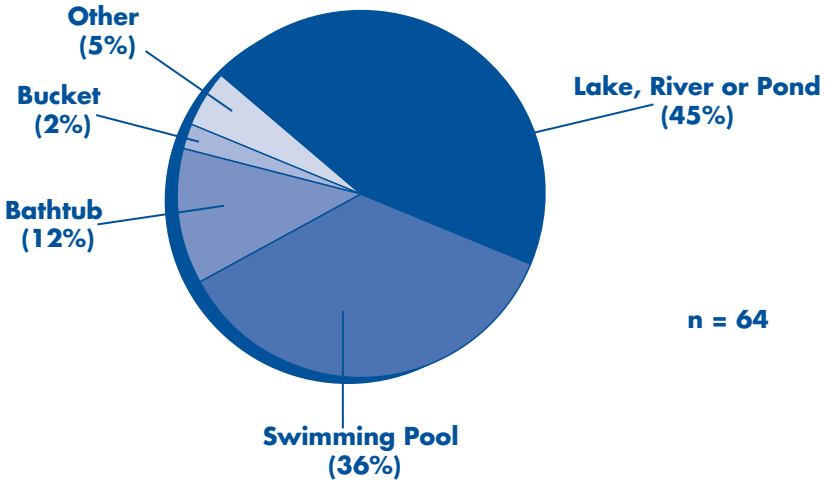
Key Findings

In 2002 and 2003, there were 73 accidental drowning deaths to children. This represents an 18% decrease from 44 deaths in 1990 to 36 deaths in 2003. CDR teams reviewed 64 accidental drowning deaths in 2002 and 2003.

Children ages 1-4 were found to be at increased risk of drowning. But local teams also reported an equally increased drowning risk for youths ages 15-18.

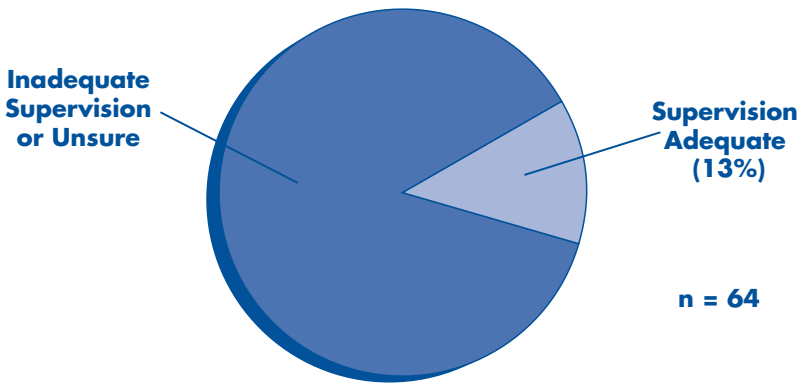
Nine drowning deaths to infants were reviewed. Seven of them were in bathtubs at the time. Over half of the toddlers ages 1-4 drowned in pools and over half of the older children ages 5-18 drowned in open bodies of water (lakes, rivers, ponds, etc.).

Accidental Drowning Child Deaths Reviewed by Location, 2002–2003



Of the 23 child drownings in pools, six children were unattended when they entered the pool area through a gate. Four of these gates were known to have been unlocked at the time. In seven of the 23 cases, the pool was known to have not been completely fenced.

Accidental Drowning Child Deaths Reviewed by Supervision Adequacy, 2002–2003



Recommendations Regarding Child Drownings

1. The Michigan Municipal League, Michigan Association of Counties and Michigan Township Association: Work with communities to enforce the Michigan Construction Codes that require local units of government to adopt and enforce pool-fencing regulations.

2. The Michigan Department of Human Services Office of Children and Adult Licensing: Promulgate child care licensing rules for barriers to pools, hot tubs or open bodies of water at regulated child care facilities.

3. The Department of Natural Resources, Michigan Municipal League, Michigan Association of Counties, Michigan Township Association and Michigan Parks and Recreation Association: Work with local communities to provide adequate signage and appropriate rescue equipment in areas of waterfront and shorelines accessible to the public. Signage should include warnings and appropriate safety precautions.

Accidental – Firearm and Weapon

Key Findings

In 2002 and 2003, there were six accidental firearm deaths to children in Michigan. This represents an 86% decrease from 14 deaths in 1990 to two deaths in 2003. CDR teams reviewed the accidental firearm or other weapon deaths of five children in 2002 and 2003.

The circumstances involved included two hunting incidents, an unintentional self-inflicted wound that resulted from a struggle, a child playing with a firearm found in his home and an unintentional discharge of a weapon due to improper storage. In the last two cases, the firearms were not stored in a locked cabinet and there were no trigger locks on the guns.

In three of the four cases involving minors, teams deemed supervision to have been inadequate at the time of the incidents. All five accidental firearm and weapon deaths were judged to be "definitely" preventable.

Recommendations Regarding Accidental Firearm and Weapon Deaths to Children

1. The Michigan Attorney General's Office: Ensure statewide enforcement of the current laws that require:
   a. Federally licensed firearm dealers to provide, at the point of sale, written materials on gun safety and the proper storage of guns in homes with children; and
   b. Federally licensed firearm dealers are not to sell a firearm in Michigan without a commercially available trigger lock or other device, designed to disable the firearm and prevent it from discharging.

2. The Michigan Legislature: Enact legislation that provides specific criminal penalties to adults who are negligent in the safekeeping of guns that are used to injure or kill children.

3. The Michigan Department of Education: Take the lead in developing an education plan for family gun safety.

Accidental - Other Causes

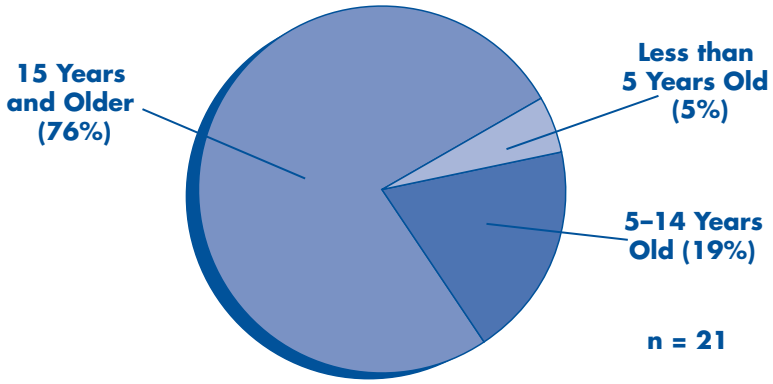
Key Findings

In 2002 and 2003, there were 56 Michigan children who died of unintentional injuries not addressed in previous sections, such as poisoning, falls and injuries sustained when the victims were crushed or struck by objects. CDR teams reviewed 41 such cases in 2002 and 2003.

Only one of the poisoning victims was less than four years old, while nearly three-quarters of the victims were ages 15 or older. Accidental overdose while trying to get high accounted for most of the adolescent poisoning deaths.

Of the 21 unintentional poisoning deaths reviewed, nine were by prescription drugs, six were by illegal drugs and six were due to carbon monoxide.

Accidental Poisoning Child Deaths Reviewed by Child's Age, 2002–2003



Five of the 41 child deaths reviewed in this category were from injuries sustained in falls, and nine cases involved children who died from injuries received when they were crushed or struck by objects.

Homicide - Firearm and Weapon

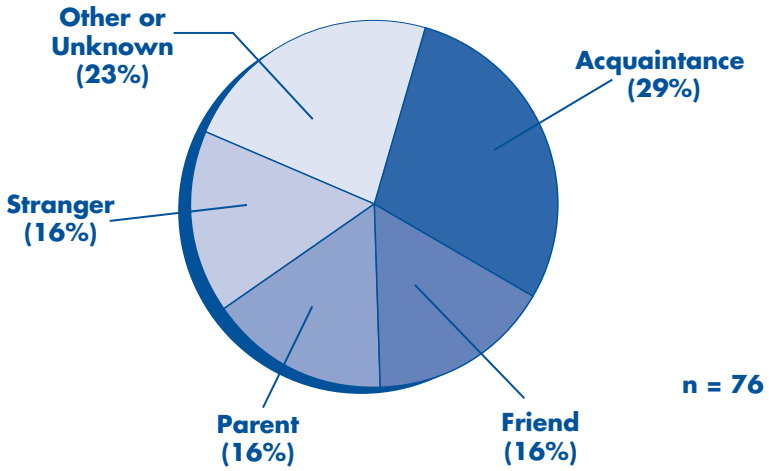
Key Findings

In 2002 and 2003, there were 92 child homicides caused by firearms and other weapons. This represents a 72% decrease from 141 deaths in 1990 to 40 deaths in 2003. CDR teams reviewed 76 firearm and weapon related homicides in 2002 and 2003.

Sixty-five percent of weapon homicides reviewed were to children ages 15-18. Seventy-one percent of these deaths were to black children. Approximately three quarters of the deaths were to children whose families were deemed to be of low socio-economic status.

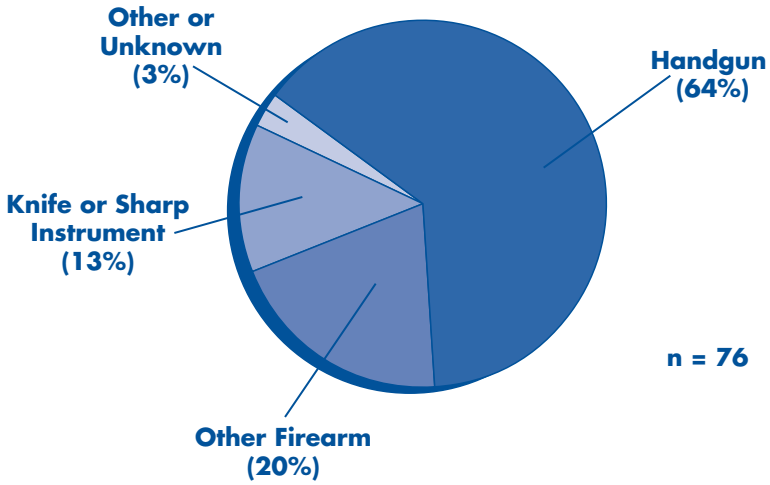
The perpetrator was most frequently an acquaintance (29%), followed by parents, friends or strangers (16% each).

Firearm and Weapon Child Homicides Reviewed by Person Who Inflicted Injury, 2002–2003



Ten of the 76 child homicides reviewed due to firearms or weapons included four sibling groups and were reported by MDHS to NCANDS as being due to child abuse or neglect.

Firearm and Weapon Child Homicides Reviewed by Type of Weapon, 2002–2003



Recommendations Regarding Firearm and Weapon Child Homicides

1. The Michigan State Police: Spearhead an initiative to partner with communities and local law enforcement experiencing high rates of teen homicides, to identify the neighborhoods most at risk for gun homicides, and implement comprehensive violence-prevention initiatives.

2. Michigan Courts: Support enforcement of laws that require gun safety mechanisms on all firearms at the point of sale.

3. The Michigan Department of Community Health and the Michigan Department of Human Services: Work with local Community Mental Health to recognize and ensure treatment for the mental health needs of families.

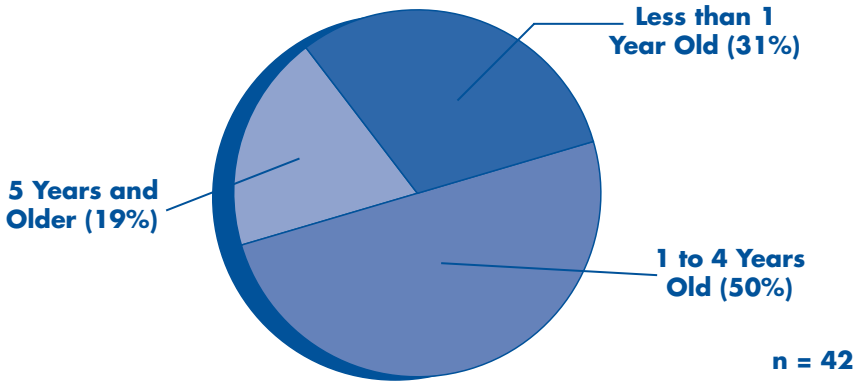
4. The Michigan Department of Community Health: Partner with the Michigan Chapter of the American Academy of Pediatrics to disseminate and implement the AAP's Violent Injury Prevention Program (VIPP) in primary care offices around the state.

Homicide - Child Abuse and Neglect

Key Findings

In 2002 and 2003, death certificate data indicates that 18 Michigan children died due to child abuse and neglect. However, CDR and the Michigan Department of Human Services identified 52 child abuse and neglect deaths in 2002. The process used to fully count maltreatment fatalities for 2003 has not yet been completed. CDR teams reviewed 42 child abuse and neglect homicides in 2002 and 2003.

Child Abuse and Neglect Homicides Reviewed by Child's Age, 2002–2003



Recommendations Regarding Child Abuse and Neglect Homicides

1. The Michigan Department of Human Services, Michigan Department of Community Health and Michigan Department of Education: Ensure that human service professionals working with high-risk families are knowledgeable about support programs and resources for new families, especially Maternal Support Services, Infant Support Services and other State and community-based primary and secondary prevention programs.

2. The Michigan Department of Human Services, Michigan Department of Community Health and Michigan Department of Education, in partnership with other disciplines: Develop (and Michigan Legislature: allocate funds for) home visitation programs using best practices, with home nursing as a component, targeting low-income, at-risk children/families.

3. The Michigan Department of Human Services and the Children's Trust Fund: Continue the Shaken Baby Syndrome Prevention campaign.

4. The Michigan Health and Hospital Association: Implement, statewide, the Children's Trust Fund Shaken Baby Syndrome prevention information/programs.

5. The Children's Cabinet: Commission research identifying the risk and protective factors for fatal child maltreatment.

Homicide - Other Causes

Key Findings

In 2002 and 2003, there were 37 Michigan children who died due to homicides of causes other than firearm and weapon or child abuse and neglect. CDR teams reviewed 17 such cases in that same time period. Over half (53%) of these deaths were to children under the age of five.

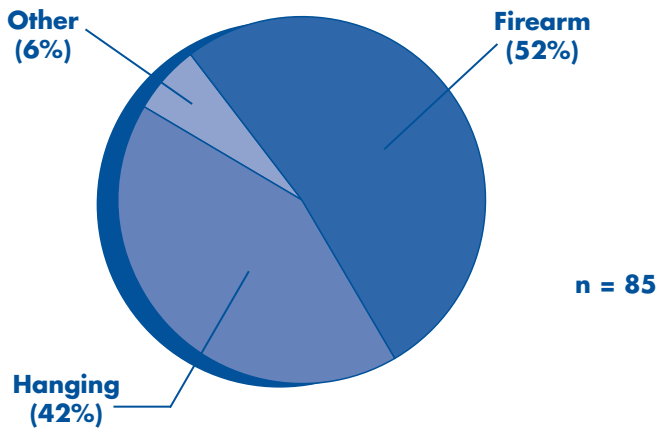
This category includes intentional deaths that resulted from poisoning, motor vehicle crashes, drowning, suffocation/strangulation and fire/burns.

Suicide

Key Findings

There were 97 child suicides in Michigan in 2002 and 2003. Sixty-five percent of these deaths were to white males ages 14-18. The most frequent method of suicide was firearms (47), followed by hanging (42). CDR teams reviewed 85 teen suicides in 2002 and 2003.

Child Suicides Reviewed by Method, 2002–2003



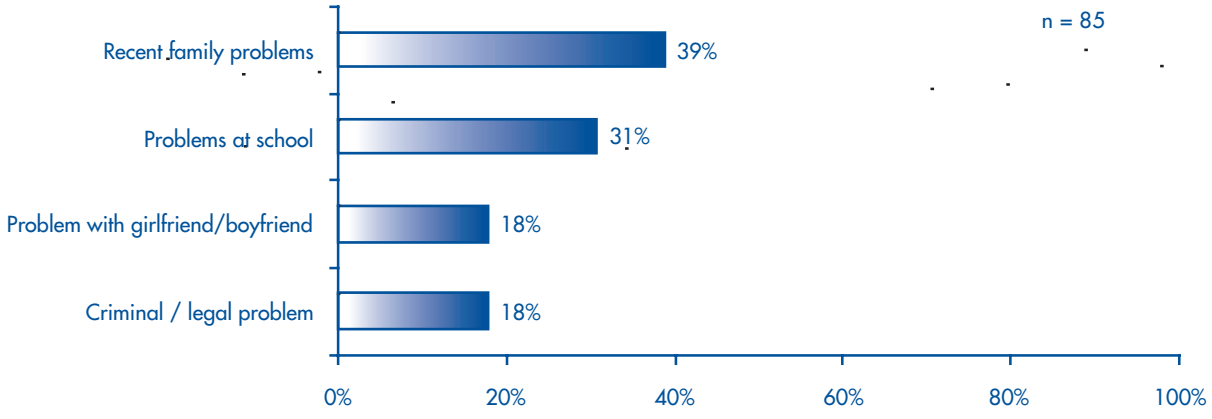
Teams considered most youths completing suicide (51%) to be of middle socio-economic status (SES). Of the remaining suicide completers, 26% were of low SES, and in 20% of the cases, SES was unknown.

Of the 44 firearm suicides reviewed, 40 youths accessed guns that were not stored in locked cabinets, and only two of the guns used were known to have had a trigger lock.

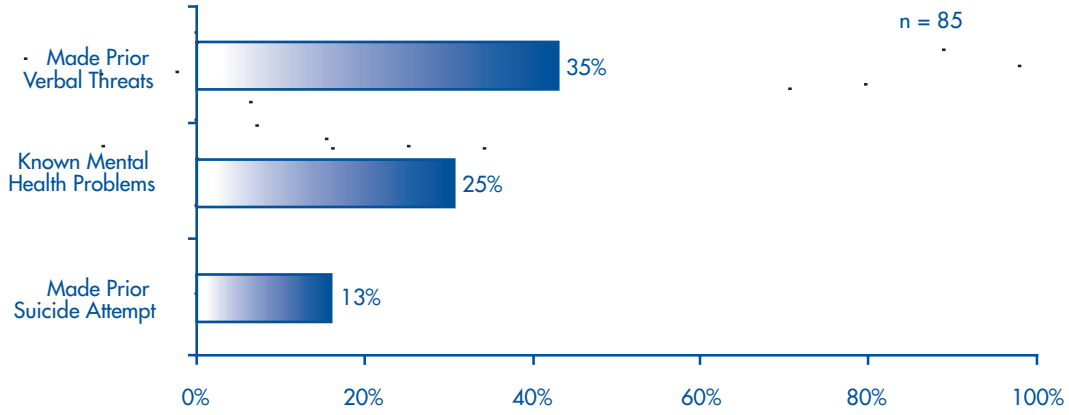
Often, a precipitating event can be identified as a factor that contributed to the suicide. Other suicides occur with no indication as to why it happened. As they reviewed the deaths, teams found that 38% of the suicides appeared to be completely unexpected.

A total of 15 youths (18%) had illegal drugs, alcohol or both in their systems at the time that they committed suicide.

Child Suicides Reviewed by Precipitating Event, 2002-2003



Child Suicides Reviewed by Risk Factors, 2002-2003



Recommendations Regarding Child Suicides

1. The Michigan Department of Community Health: Take the lead in collaborating with the Michigan Department of Education and Michigan Department of Human Services to support the development and implementation of a state suicide prevention plan.

2. The Office of the Governor: Support the State Mental Health Commission in addressing the access to services for youths at risk for suicide.

3. The Michigan Department of Community Health: Lead a collaboration between community mental health, the Michigan Health and Hospital Association and the Michigan Department of Education, to ensure that bereavement services are available to all children who have experienced the recent death of a family member or close friend.

4. The Michigan Department of Community Health: Ensure that parents, teachers and professionals in the fields of public and mental health, substance abuse and juvenile justice have an awareness of the risk factors of youth suicide and how to access intervention services by providing educational training and materials.

Undetermined Manner

Key Findings

In 2002 and 2003, death certificates recorded that 31 Michigan children died of undetermined manner. CDR teams reported reviewing 106 child deaths of undetermined manner in those two years. The main reasons for the discrepancy in numbers are: (1) manner of death is unavailable from Vital Records, so SIDS and other unexpected infant mortality are considered "Natural" manner under the cause of death coding rules of the National Center for Health Statistics, regardless of whether the local medical examiner called the manner "Undetermined"; and (2) death certificates may include additional information from the certifying physician or have been amended since the time that CDR teams conducted the review.

Of the 106 deaths reviewed due to undetermined manner: 50% were sleep related deaths to infants; 11% were overdoses; 9% were suspicious of child abuse or neglect; 8% were known to be self-inflicted, but intent was unclear; and 23% involved various other individual circumstances.

Recommendation Regarding Child Deaths of Undetermined Manner
[Note: this recommendation is also listed in the SIDS and Suffocation/Strangulation sections.]

1. The prosecuting attorney, law enforcement agencies, medical examiner and the Department of Human Services in every county: Upon the promulgation of rules by the Michigan Department of Community Health per Public Act 179 of 2004, jointly adopt and implement the child death scene investigation protocols.

The Fetal and Infant Mortality Review Process

Fetal and Infant Mortality Review (FIMR) teams provide an on-going community needs assessment with the goal of improving birth outcomes. The Michigan model of close collaboration between FIMR and CDR is nationally recognized. There are currently 14 FIMR teams in Michigan, which represents counties that have 68% of the infant mortality in the state.

The Michigan Department of Community Health (MDCH Title V) continues to support the FIMR teams with technical assistance and statistical and epidemiological information. Above all, the development of state support for local FIMR teams was designed to help improve birth outcomes in Michigan. Having experienced essentially no reduction in infant mortality since 1996, despite some continued reductions in other areas of the nation, Michigan is determined to improve this picture. The current Title V and five-year plan includes information gained from local FIMR findings and calls for continuation of this process.

Data are collected from a variety of sources prior to the review meeting. These may include prenatal care history, maternal hospitalizations, labor and delivery records, infant hospital records (pre and post discharge), well baby and sick baby visits, infant emergency department and hospital readmissions, DHS history, police records, support services such as WIC, MSS and ISS. An interview with the family, particularly the mother, is also conducted.

A de-identified case summary is then prepared and presented to the Community Review Team (CRT) by the local coordinator/facilitator, and each case is examined for the significant social, economic, public health, educational, environmental and safety issues related to the death. Team members capture issues associated with and contributing to the death while asking the questions:

- Did the family receive the services or community resources they needed?
- Are there gaps in the systems?
- What does this case tell us about how families use the existing local resources?
- What are the barriers to care?
- What are the trends in service delivery?
- What can be done to improve policies that affect families?

After thorough discussion and review, recommendations are formulated and passed on to the Community Action Team (CAT) for consideration and possible implementation.

Michigan Fetal and Infant Mortality Review Statistics

Local FIMR teams remain concerned about the number of infant deaths associated with less than adequate prenatal care, regardless of the cause of death. In 2002 and 2003 case reviews, 50% of moms entered care during their first trimester (the first 12 weeks of pregnancy), and fewer than one in three moms received "adequate" prenatal care (taking into account the necessary number of prenatal care visits based on Kessner's Index).

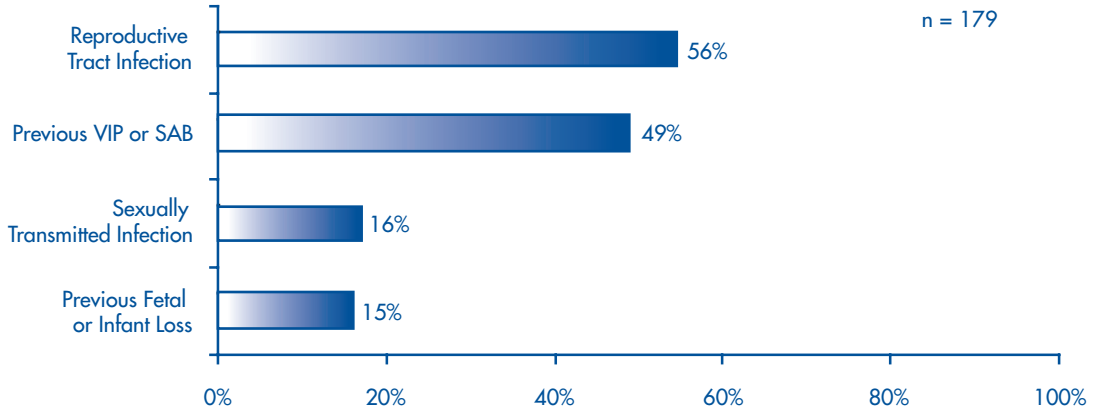
The majority of deaths reviewed by FIMR teams in 2002 and 2003 were neonatal deaths (68%), before the 28th day of life. Most of these neonatal deaths were related to complications caused by prematurity and low birth weight. FIMR teams collect information on multiple factors known to be highly associated with infant deaths due to prematurity.

Infections, such as bacterial vaginosis (BV) and sexually transmitted infections, are thought to pre-dispose a woman to preterm labor. Other events that may weaken the cervix, such as previous elective abortion,

spontaneous miscarriage, previous infant loss or stillbirth have been identified as risk factors for preterm delivery.

- Over half of the women had a reproductive tract infection (such as bacterial vaginosis or chorioamnionitis) or sexually transmitted disease.
- Nearly half of the women had had either a previous voluntary interruption of pregnancy (VIP) or a spontaneous miscarriage (SAB).
- Previous loss of either a live born or stillborn infant affected about one in seven of the women whose babies died due to prematurity.

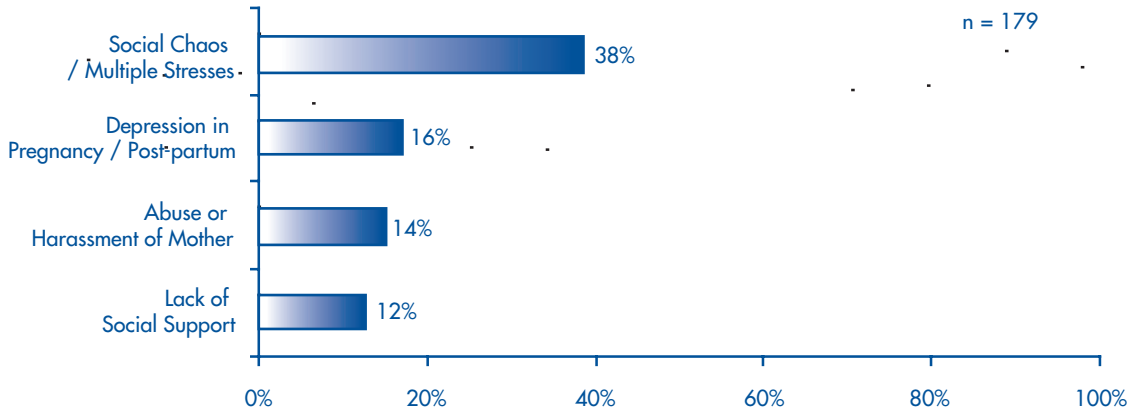
Infant Deaths From Prematurity Reviewed by Maternal Medical Conditions, 2002-2003



Poverty, stress and lack of social support have been emerging as factors that may play a role in predisposition to pre-term labor, especially for black women:

- One in eight women lacked social support from their families or communities.
- Depression or other mental illness during pregnancy was also a significant risk factor, occurring in one in six women.
- Over a third of women were identified as having multiple stressors or "social chaos" present in their lives.
- One in seven women suffered from abuse or harassment at some point in their lives.

Infant Deaths From Prematurity Reviewed by Maternal Psychosocial Factors, 2002-2003



Recommendations Regarding the FIMR Process

These recommendations have been reviewed and supported by the State FIMR Network for further consideration by the Michigan Department of Community Health.

1. Reinvest in outreach – restore outreach funding for public health programs to link women to health services.
   a. Expand indigenous paraprofessionals to identify and provide outreach to pregnant women and women with children under one year of age.
2. Pregnancy prevention and family planning – increase access to pregnancy prevention and family planning services as a primary prevention model.
   a. Address unintended pregnancy through exploration of the submission of a family planning 1115 waiver.
   b. Health education for women of childbearing age that includes information on nutrition, folic acid, and substance abuse.
3. Improve insurance options for adult non-pregnant women – any consideration for expanding health insurance programs should include preconception care for women who are not pregnant and of childbearing age (19-44 years).
4. Coordination of services – the state must assess its own programs, providing a state "mapping" of services that communities can then use to create a seamless system of care for women.
   a. Support the location of Women Infants and Children (WIC) services in complexes with doctor's offices and other centralized services.

Recommendations Regarding the FIMR Process Continued...

5. Expand services that enhance access for high-risk populations:
   a. Increase Federally Qualified Health Centers (FQHCs) in both Detroit and in the outstate region.
   b. Develop and implement standards of care for women's health care services similar to the Early and Periodic Screening Diagnosis and Treatment (EPSDT) model of care for children.
   c. Increase public and private investments in school-based and school-linked health services.
6. Encourage local community planning and collaboration – community planning and collaboration must be supported, developing culturally and geographically appropriate public and private services that are sensitive to the needs of that particular community.
   a. Partner with employers to expand pregnancy and parenting friendly policies in workplaces.
7. Collect and analyze data for infant mortality and maternal services:
   a. Continue to collect and analyze data from FIMR sites. Target the communities with the highest infant death rates and greatest racial disparities. Consider providing seed monies to new and developing teams. And, continue technical assistance to established review and community action teams.
   b. Implement a data collection system statewide for Maternal Support Services/Infant Support Services (MSS/ISS) that includes consistent assessment of client needs and services provided.
   c. Evaluate the Medicaid data to determine how infant mortality is impacted by barriers to access such as Medicaid reimbursement policies, transportation reimbursement and provider resources/availability.
   d. Collect data for the Maternal Morbidity Review process that focuses on prematurity, low birth weight and infant mortality including chronic diseases and behavioral factors such as the impact of stress and abuse of women of childbearing age and their families.

Child Deaths
IN MICHIGAN
section one

The Michigan Child Death Review PROCESS

Conducting a Local Review

Purpose

Child Death Review (CDR) brings together multidisciplinary groups of people to conduct comprehensive reviews of child deaths in order to identify the factors that may have contributed to the deaths. The reviews then motivate communities to take action in order to prevent other similar tragedies in the future.

Membership

There is no legislative mandate to participate on a review team, yet nearly 1,200 local professionals on 79 county teams demonstrate a tremendous volunteer commitment to the review process. Statute does require that where teams are established, they include at least the county medical examiner, the prosecuting attorney, a law enforcement officer and representatives from local public health and the county Department of Human Services. Most teams have even broader representation. The average team size is 15 members.

Table 1
Representation on Local Child Death Review Teams, 2002-2003

Agency	Number
Law Enforcement	307
Local Public Health	137
County Department of Human Services	118
Medical Examiners' Offices	113
County Prosecutors' Offices	109
Hospitals	101
Community Mental Health	53
Emergency Medical Services	48
Schools	42
Health Clinics and Physicians	37
Courts	30
Other Social Services	14
Community Collaboratives	13
Other Community Providers	11
Tribal Health/Social Services	7
Funeral Homes	6
Fire Departments	4
Churches	2
Hospice	1
Other	33
Total	**1,186**

Team Coordination

In every county, a team member volunteers to coordinate the team's activities. The role of the coordinator often includes selecting cases for team review, communicating with team members, coordinating and facilitating the meetings and completing case reports.

Table 2
Coordinator Representation on Local Child Death Review Teams, 2002-2003

Agency	Number
Local Public Health	25
County Department of Human Services	16
Medical Examiners' Offices	13
County Prosecutors' Offices	11
Law Enforcement	8
Community Collaboratives	4
Courts	3
Health Clinics and Physicians	2
Community Mental Health	2
Hospitals	2
Emergency Medical Services	1
Other Social Services	1
Other	1
Total	**89**

There are no state program funds supporting the local coordinator activities. In some cases, the role of coordinator is shared. Many coordinators have served their teams since they were established. Annual meetings are held for coordinators at regional locations throughout the state.

Cases Selected for Review

The teams attempt to review all deaths of children under the age of 19, with the exception of the largest counties in Michigan (Genesee, Ingham, Kent, Macomb, Muskegon, Oakland and Wayne). Because of their high numbers of child deaths, these teams select cases that fall under the jurisdiction of the medical examiner for their reviews. These include sudden and unexpected deaths, accidents, homicides and suicides.

Teams often find it difficult to review natural infant deaths, because the maternal and perinatal health histories are often not available and the cases tend to be more medically complex. Fourteen Michigan communities conduct more intensive reviews of infant deaths through the Michigan Fetal and Infant Mortality Review (FIMR) program described in Section Nine of this report.

In 2002 and 2003, 69 counties conducted child death reviews. Of the 14 counties not conducting reviews, half had five or less child deaths occur in the two-year period.

Access to Information for an Effective Review

The Office of the State Registrar, Division for Vital Records and Health Statistics at the Michigan Department of Community Health (MDCH) has facilitated a process that enables teams to more readily obtain notification of their child deaths, especially those occurring in counties other than the county of residence. Counties that border other states still find it difficult to obtain information from those states in a timely manner.

The 1997 legislation for CDR provides teams the authority to meet and requires that the meetings are

confidential, but it does not address access to records. Many teams continue to report difficulty in gaining access to the information necessary for a complete and quality review, especially health and medical information on the child or the mother regarding a perinatal death. Much of the information missing in this report is due to team members' inability to gather and/or share information. Twenty-one county teams also reported that confidentiality concerns prevented them from exchanging information.

Since the Health Insurance Portability and Accountability Act of 1996 (HIPAA) was enacted, some CDR team members have become wary of sharing information at review meetings. Fortunately, the Privacy Rule includes a number of provisions for public responsibilities where the privacy rights of the individual must be balanced against larger social purposes. Public health is one of those purposes, so there is explicit language that allows covered entities to justify disclosing data for use in public health activities.

Michigan's CDR is a surveillance system as well as an investigation and intervention designed to achieve a clear public health goal. Thus, it meets the second criterion from the Privacy Rule's public health activities exception. This means that covered entities may disclose protected health information to the CDR team for use in the review without obtaining authorization from the parents.

At the Review

An effective review begins with all participants sharing relevant information from their agencies regarding the circumstances surrounding the child's death. Team members ask for clarification as needed. The team discusses each death, considering the following questions:

- Is the investigation comprehensive and complete?
- Are there services we should be providing?
- Are there other children at imminent or serious risk of harm?
- What were the risk factors involved in the death?
- Are there agency policies and practices that should be changed?
- What action are we going to take locally to prevent another death?
- Who should take the lead to implement our recommendations?
- What recommendations should we make to the state?

State Support

The Michigan Department of Human Services provides funding to the Michigan Public Health Institute (MPHI) to manage the CDR program. This funding supports the following:

Technical Assistance, Consultation and Training for Local Teams

Staff regularly attend local review team meetings, assist teams in identifying deaths, facilitate access to information and organize and facilitate effective meetings. Staff provide follow-up materials and support to the teams as well as resources on death investigation, services, prevention and procurement of information on specific causes of deaths. CDR staff manage the reporting system and assist counties in utilizing the online database.

The 8th annual CDR Team Member Training was held in May 2004. One hundred thirty- nine team members attended. Currently, 32% of team members have attended this annual two-day training event. All of the trainers are Michigan experts in areas related to child fatalities.

The Child Death Review Reporting System

As local teams conduct reviews, they also complete a confidential case report on each death. This information is entered into a secured Web-based system. Findings are then aggregated and shared with the State Advisory

Team and form the basis for this report. When appropriate, and in accordance with state statute, general findings from the local teams are also shared with the public.

Starting in 2005, Michigan's CDR program will be part of a multi-state pilot project utilizing a new reporting tool. It was developed by the National Maternal Child Health Center for Child Death Review, along with assistance from many professionals from around the country. Analysis with this in-depth tool will provide an even clearer picture of how and why children are dying.

Linking Local Programs, State and Other Resources

CDR has worked closely with MDCH in implementing the FIMR program. This has helped to ensure that all communities with FIMR and CDR work together to encourage and enhance prevention efforts in communities with high infant mortality rates and/or racial disparities.

In 1995, CDR, the Michigan State Police, the Michigan Association of Medical Examiners, the Michigan SIDS Alliance, the Prosecuting Attorneys Association of Michigan and MDCH worked with a number of other state and local organizations to develop the *State of Michigan Protocols to Determine Cause and Manner of Sudden and Unexplained Child Deaths*. These protocols have been endorsed and distributed throughout the state. They are now a required standard for death investigations in a growing number of counties. CDR continues to make the protocols available, supports training for investigators and encourages their use.

The program has collaborated with a number of other state programs to encourage and support local and state prevention initiatives. Collaborations have occurred with the SAFE KIDS Campaign, the Children's Trust Fund, Tomorrow's Child (formerly Michigan SIDS Alliance) and the Michigan State Police Office of Highway Safety Planning. CDR reports regularly to the Governor's Task Force on Children's Justice.

Support for Local Prevention Efforts

CDR staff work closely with communities in identifying prevention strategies, designing programs, and locating resources to implement these strategies. Communities are encouraged to share information on successful prevention efforts with other CDR teams. Examples of prevention strategies that have been implemented can be found in every section of this report.

State Advisory Team

The Michigan Child Death State Advisory Committee is a multidisciplinary committee that was formed by Public Act 167 of 1997 to identify and make recommendations on policy and statutory changes pertaining to child fatalities and to guide statewide prevention, education and training efforts. It is required to publish these annual reports on child fatalities, based on the compilation of death data reported by the state registrar, as well as data received from the county level child death review teams across the state. This report is the first to cover two years' worth of data in one report.

The team is comprised of professionals around the state involved in the health, safety and protection of children. This team met eight times during 2002 and 2003. The team used some of the time in these meetings to review past recommendations of the committee, in order to determine if any action had been taken on those issues. Appendix C contains a listing of these recommendation updates. Examples include:

- The Michigan Department of Community Health, the Michigan Department of Human Services, Michigan State Police, Chiefs of Police, Michigan Sheriff's Association, Michigan Association of Medical Examiners and Prosecuting Attorneys Association should collaborate to ensure statewide utilization of Michigan standards for child death scene investigations using the *State of Michigan Protocols to Determine Cause and Manner of Sudden and Unexplained Child Deaths* as a model. (from 4th annual report; similar recommendation in 2nd annual report)
  Update: As of 7/1/ 2004, Public Act 179 states, in part, "The Department of Community Health shall

promulgate rules and regulations under this act to promote consistency and accuracy among county medical examiners and deputy county medical examiners in determining the cause of death under this section. The department may adopt, by reference in its rules, all or any part of the "State of Michigan Protocols to Determine Cause and Manner of Sudden and Unexplained Child Deaths" published by the Michigan Child Death Review program." MDCH is currently convening a multi-disciplinary group to advise them on the best way to move forward with this law.

- Develop a statewide campaign on safe infant sleeping environments following the recommendations of the Consumer Product Safety Commission, and include a special focus on babysitters and child care providers. (from 2nd annual report)
  Update: MDCH is currently in collaboration with MDHS, Tomorrow's Child, CDR and local community reps to develop a statewide campaign on safe infant sleep.

- The Michigan Department of Human Services should increase and improve the resources available to educate and support the medical community and other mandated reporters to understand, identify and report suspected child abuse and/or neglect. (from 4th annual report)
  Update: A new guide for mandated reporters has been developed at MDHS. It will serve as a tool to identify, educate and encourage reporting by mandated reporters, as well as outline the civil duty and process for reporting. Specialized training for the reporting process is currently available through the Medical Services Advisory and Prosecuting Attorneys Association of Michigan.

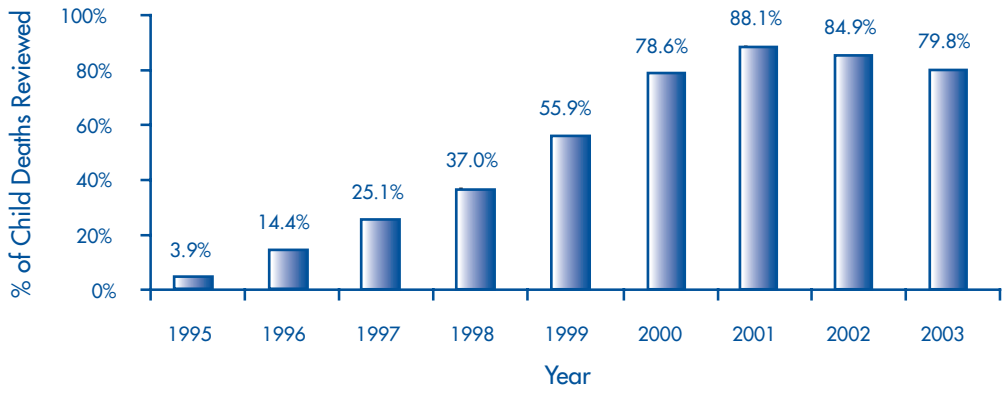
The National Center for Child Death Review

The Michigan CDR program is recognized as a national model because of its focus on reviewing all deaths and its emphasis on prevention. In 2002, the U.S. Department of Health and Human Services, Maternal and Child Health (MCH) Bureau awarded MPHI a grant to establish and administer the National MCH Center for Child Death Review. As a result, MPHI, including Michigan CDR program staff, are providing national leadership in promoting CDR to states and national organizations. The National Center has provided technical assistance and training to more than 35 states, developed a national CDR reporting system that is being piloted by a number of states in 2005, developed national standards for the CDR process and is working with federal agencies and other national organizations to link CDR to national child health and safety initiatives.

Review Outcomes

Since 2000, local CDR Teams have reviewed roughly half of all child deaths occurring in the State of Michigan. A much higher percentage of unintentional injury and violent deaths have been reviewed than of natural deaths. Since prevention efforts most often focus on injury and violence, it is important to capture details on as many of these types of deaths as possible. The Healthy People 2010 Report from the U.S. Department of Health and Human Services has an objective of extending all states' child death reviews to include 100% of child deaths from external causes.

Figure 1
Percent of Non-Natural Child Deaths in Michigan Reviewed by Local CDR Teams*



* Child death reviews conducted in 2004 will continue to review some deaths that occurred in previous years.

Comments from Local Teams Regarding the CDR Process

Antrim – Process is organized, forms easy to use.

Arenac – Information from meetings is shared with collaborative bodies such as Strong Families Safe Children and Child Protection Council. At this time, a work group is being planned for a community baby pantry through our Child Protection Council after initial discussion at a CDR meeting.

Barry – It gives CDR and member agencies an overall view of areas of concern in our county.

Branch – We are hopeful that our county will be taking "the next step" and getting active with prevention initiatives.

Charlevoix – At the very least, it brings pertinent issues to the attention of the community leaders.

Huron – Huron County stats are minimal, but contribute to the "big picture" nationally.

Monroe – The team approach brings several disciplines to the table to discuss what is going on in our county regarding child deaths.

Muskegon – If it weren't for our coordinator's plea to do something about our drowning numbers, the Water Safety Committee would not have been formed, which has come up with numerous activities to help with public awareness.

Oakland – The CDR process is absolutely vital to preventing future child deaths. The key to success is membership on the team of individuals experienced in handling child deaths from different perspectives, who are committed to active participation in the review process. We are in a unique position to make a real difference by studying each child death to identify dangerous patterns and practices, the first step in preventing similar future tragedies.

Ontonagon – It facilitates communication and awareness of community problems with agencies that are able to effect change.

Ottawa – We have been involved in day care safety in the past, as well as pond safety around apartment complexes. I believe that has had an impact on reducing child deaths. Although we weren't directly involved in the RIPTIDE group, I believe that will be effective as well in raising public awareness.

St. Clair – It forces us to look at all deaths of children, detecting patterns that need to be addressed; e.g., water safety, fire safety, car seat, safe sleep, etc. and the best ways to implement a plan locally. Often times those recommendations are passed through our local multi-purpose collaborative body to initiate programs.

Tuscola – The process assists in the prevention of something happening to a younger sibling. It helped get more stop signs in the county. It helped get awareness out on SIDS and the importance of the "Back to Sleep" program.

Recommendations for Policymakers

1. Michigan Legislature: Ensure continued and enhanced resources to support the comprehensive review of Child Death Review (CDR) findings and trends, enhance local prevention efforts and training for CDR team members.

2. The Michigan Department of Community Health: Consider establishment of a state-based regional medical examiner system.

Child Deaths
IN MICHIGAN
section two

Special Issues in Child Deaths

Special Issues in Child Deaths

This annual report presents mortality data and CDR team findings based on cause of death. Most of these causes are fairly easily categorized: motor vehicle crashes, drownings, etc. There are, however, two types of child deaths that currently pose unique challenges. This section highlights the special issues involved in deaths to infants in sleep environments and child abuse and neglect fatalities.

Infant Deaths in Sleep Environments

A national debate is ongoing in medical, legal and human services circles regarding the diagnoses that are assigned to infants who die suddenly and unexpectedly in sleep situations. During the past several decades, the diagnosis of SIDS was usually made in these deaths when the autopsies and medical histories found no probable medical cause. The nationally recognized definition of SIDS is the death of an infant under one year of age which remains unexplained after a thorough autopsy, review of the medical history and death scene investigation have been conducted.

In the past ten years, there has been a national effort to improve the quality of death scene investigations in these cases. As a result, better information is available on the circumstances surrounding these types of deaths and on the sleep environments. These include:

- The sleeping location, including cribs, adult beds, couches or chairs.
- The infants' sleep position when found, including prone or supine sleeping.
- The types of bedding used in the sleep environments, such as soft mattresses, thick or heavy blankets, pillows or stuffed toys.
- Whether or not the infant was sharing a sleep surface with others, including parents or siblings.

Those responsible for determining manner and cause of death are now more likely to include the scene findings in making their determinations. The ongoing debate relates to how to categorize these sudden and unexpected infant deaths when there are positive scene findings: is the death due to SIDS, accidental suffocation or should the manner and cause be classified as undetermined? As yet, there is still no agreement and no consistency in practice among medical examiners and coroners around the country. Thus, infants who die suddenly and unexpectedly during sleep will be represented in mortality statistics in all three areas: SIDS, suffocations and undetermined.

From a prevention perspective, how these deaths should be classified is eclipsed by the fact that these infants share the same or similar risk factors in their sleep environments.

This section presents an overview of the risk factors in all of the reviews of infants who died suddenly and unexpectedly while sleeping. It includes the following (as stated on the official death certificate):

- 105 SIDS deaths
- 94 infant suffocation deaths
- 54 infant deaths of undetermined manner (and often cause)

The following information highlights the fact that many of the same risk factors were present and points to the need for effective interventions to prevent these deaths.

Sleeping Location

Current recommendations from the Consumer Product Safety Commission (CPSC) on infant sleeping environments include placing babies to sleep on firm, tight-fitting mattresses in cribs that meet current safety standards. Research has shown that babies are at higher risk of dying suddenly and unexpectedly when placed to sleep on other surfaces, such as adult beds, couches or waterbeds.

The reviews found that most babies were not sleeping in cribs at the time of their deaths. The majority (69%) of these babies died in unsafe sleeping locations, and overall only 16% were sleeping in cribs.

Table 3
Number and Percent of Infant Sleep Location by Official Cause, 2002-2003

Sleeping Location	SIDS		Suffocation		Undetermined	
	Number	Percent	Number	Percent	Number	Percent
Crib	24	22.9	8	8.5	8	14.8
Port-a-Crib / Playpen	8	7.6	5	5.3	6	11.1
Bassinette	6	5.7	4	4.3	4	7.4
Adult Bed / Waterbed	36	34.3	56	59.6	24	44.4
Couch / Recliner	16	15.2	18	19.1	5	9.3
Other	13	12.4	2	2.1	4	7.4
Unknown	2	1.9	1	1.1	3	5.6
Total	**105**	**100.0**	**94**	**100.0**	**54**	**100.0**

Sleep Position

It has been ten years since the American Academy of Pediatrics and the National Institutes of Health launched the campaign to encourage caregivers to place babies on their backs as a way to reduce the risk of SIDS. Since the "Back to Sleep" campaign began, the SIDS rate in Michigan decreased from 1.21 per 1,000 live births in 1994 to 0.66 in 2001. However, the "Back to Sleep" message appears to have not been as effective in reaching non-white populations.

Unfortunately, the current CDR case report does not include data elements on sleep position for infants who die from suffocation or undetermined manner. However, for the SIDS deaths reviewed, the teams found that only 32% of the infants were reported to have been found sleeping on their backs.

Table 4
Number and Percent of SIDS Deaths Reviewed by Sleeping Position when Found, 2002-2003

Sleeping Position	2002		2003	
	Number	Percent	Number	Percent
Stomach	27	43.5	15	34.9
Back	20	32.3	14	32.6
Side	5	8.1	8	18.6
Unknown	10	16.1	6	14.0
Total	**62**	**100.0**	**43**	**100.0**

Bedding

The CPSC recommends that safe infant bedding requires that caregivers:

- Remove pillows, quilts, comforters, sheepskins, stuffed toys and other soft products from the crib.
- Use a sleep sack as an alternative to blankets.
- Do not place babies on a soft mattress, pillow or other soft surface to sleep.

CDR teams reported that almost half of all the infants that died suddenly and unexpectedly were sleeping in heavy or overly soft bedding:

Table 5
Number and Percent of Infants in Heavy/Soft Bedding by Official Cause, 2002-2003

Official Cause	Infant in Heavy/Soft Bedding	
	Number	Percent
SIDS	52	49.5 of SIDS
Suffocation	45	47.9 of Suffocations
Undetermined	25	46.3 of Undetermined
Total	**122**	**-**

Bed-sharing

The CPSC advises that the only safe place for a baby to sleep is in a crib. Sharing a sleep surface with adults or other children introduces the risk of overlay. People sleeping with the baby, especially exhausted new parents, may not wake up if they roll over onto the baby during sleep. This risk is increased if the person sleeping with the baby is under the influence of alcohol or other drugs.

If the infant's torso is compressed under another person, their chest cannot expand and therefore the baby cannot breathe, even if their head remains uncovered. Another possibility is that the baby's face may become pressed into the other person's body, thereby restricting their airway. These two types of suffocation death are often called positional and/or compressional asphyxia.

In 72% of the suffocation deaths, the infants were sleeping with others. Even in the SIDS deaths, over one third of the infants were not sleeping alone:

Table 6
Number and Percent of Infants Bed-Sharing by Official Cause, 2002-2003

Official Cause	Infant Bed-Sharing	
	Number	Percent
SIDS	36	34.3 of SIDS
Suffocation	68	72.3 of Suffocations
Undetermined	28	51.9 of Undetermined
Total	**132**	–

Summary

For 2002 and 2003, teams reviewed the deaths of 253 babies who died suddenly and unexpectedly in their sleep. Only 46 of these babies were sleeping in cribs; 122 were found in heavy or soft bedding and 132 were sharing sleep surfaces with others. Some of these infants may have been exposed to all three risk factors.

While discussions will no doubt continue regarding the diagnosis of these types of deaths, it is important to recognize the tremendous impact of unsafe sleeping environments. Reducing the numbers of these tragedies will not occur without addressing the risk factors involved.

In all, nearly 200 more deaths to infants from SIDS, suffocations and undetermined causes in sleeping environments were reviewed than to infants who died from all other types of accidents and homicides combined (55). Since most of the risk factors involved in infant sleeping deaths are easily modifiable, these high numbers of deaths can only be seen as unacceptable, and should serve as a call to action at every level.

Under-Counting of Child Abuse and Neglect

Fatal child abuse or neglect is the fatal physical injury or negligent treatment of a child by a person who is responsible for the child's welfare. The actual number of abuse and neglect deaths is estimated to be much higher than what is reported by death certificate data. For example, in Michigan in 2002, 12 child maltreatment deaths were reported by vital statistics from death certificate data, yet the Michigan Department of Human Services (MDHS) reported 52 abuse and neglect deaths to the National Child Abuse and Neglect Data System (NCANDS) for that year.

A study published in Pediatrics (2002) that reviewed nine years of children's death certificates estimated that about half of child abuse and neglect deaths are not coded consistently on death certificates. This study reports that neglect is the most under-reported form of fatal maltreatment. There are a number of explanations for the under-reporting of child abuse and neglect, including:

- Physical abuse deaths may be coded as manner homicide, but the cause is not coded specifically as child abuse because the perpetrator is not listed on the death certificate.
- Neglect deaths may be coded as manner natural, for example due to malnutrition, hyperthermia or infectious disease.
- Some deaths may be coded as accidents, even though grossly negligent acts (or failures to act) on the part of caregivers contributed to the death.
- Deaths may have been poorly investigated and the child abuse or neglect went undetected.

In Michigan, abuse and neglect deaths can best be identified by combining four different sources:

- Death certificate data.
- Case reports submitted to state MDHS by local DHS agencies, of all deaths known of children in the system. This is known as the *Report of Minor's Death*.
- Child Death Review Case Reports.
- Uniform Crime and Homicide reports submitted by local law enforcement to the Michigan State Police (MSP).

In coordination with CDR, Michigan has taken a number of steps to develop a system to better identify all child abuse and neglect deaths and to improve our understanding of the circumstances leading to these deaths. These steps included:

1. The Michigan Child Maltreatment Surveillance Project:

In 2001, Michigan was one of five states awarded a grant by the CDC to develop a better method to count fatal maltreatment. Based at MPHI, this project was a collaborative effort with MDHS, MDCH, MSP and MPHI. The project focused on child maltreatment deaths in 1999-2001.

A project workgroup identified potential abuse and neglect cases from the four sources listed above. Work group members conducted intensive case reviews on every death identified by at least one source.

The group found that no one source identified all of the deaths, and that only by cross-referencing cases could an accurate count be completed. The project found that:

- The CDR process identified the largest number of both abuse and neglect deaths, followed by the MDHS reports.
- Crime and Homicide reports identify most abuse deaths, but no neglect.
- Death certificates were the least accurate method for determining if abuse or neglect was involved in the fatality.
- Cases categorized as accidental on the death certificate accounted for over 60% of the neglect deaths identified by the project.
- An in-depth review of cases from all four sources is the best method to identify all deaths.
- The rate of maltreatment fatality was higher for children living below 185% of the poverty line.

2. The MDHS Citizen Review Panel on Child Fatalities

In 1999, the United States Congress, through the Child Abuse Prevention and Treatment Act (CAPTA), mandated the formation of three panels for the purpose of providing an opportunity for citizens to aid in ensuring that states meet goals of protecting children from abuse and neglect by evaluating the strengths, weaknesses and challenges in the child welfare delivery system. The Citizen Review Panel (CRP) on Child Fatalities was formed in Michigan as a sub-committee of the Child Death State Advisory Team.

The CRP meets quarterly to examine cases of child abuse and neglect that have occurred within a given year. The review of fatal child maltreatment cases is a multi-step process that involves the identification of cases, the collection of case-relevant materials and a thorough case abstraction. The cases for 1999-2001 were identified through the work of the Michigan Child Maltreatment Surveillance Project, as described above, using all four sources for records. The same methodology was used for 2002 cases and is being used to identify deaths from 2003.

The CRP conducts a comprehensive case review of each fatality, and makes recommendations in a formal written report to the director of MDHS. It was through the work of the CRP that MDHS was able to identify the total of 52 child maltreatment deaths that it reported to NCANDS for 2002.

3. Electronic Report of Minor's Death

The new Child Death web report was developed to record a child fatality that is reported to the MDHS, Children's Protective Services (CPS). The report contains a set of data fields linked to the CPS data system. These fields were incorporated into the design of the new CPS child welfare information system. This report provides MDHS with the capability to correctly identify child maltreatment fatalities in CPS data systems without extensive case reading. It also allows for the analysis of these cases across any data variable available. Additionally, an e-mail tickler alert was added to expedite the exchange between workers and administration, of the information gathered during these investigations. Over time, as deaths are recorded in this manner, trends across any variable collected will be easy to identify. Furthermore, appropriate analysis of these data trends will assist MDHS in developing prevention initiatives for children and families.

It is known from the *Michigan Child Maltreatment Surveillance Project* and other research that the child death review process can be considered one of the best methods for identifying maltreatment fatalities. And yet, even CDR did not identify all of the maltreatment deaths in Michigan in 2001 and 2002.

As stated earlier, in 2002, there were 52 cases of fatal child maltreatment identified by combining reports from the four data sources, and then studied by the CRP. CDR teams had reviewed only 39 of these cases. However, even though the teams reviewed these 39 deaths, only 16 were reported by the teams to be due to abuse and neglect. The following table describes what the teams reported the causes of death to be:

Table 7
Cause and Manner of the Deaths as Reported by CDR Teams (2002-2003), Known to be Child Maltreatment Deaths through the Citizen Review Panel Process in 2002*

Manner and Cause of Death	Number
Natural	2
< 1 Year, excluding SIDS	1
> 1 Year, excluding SIDS	0
SIDS	1
Accident (Unintentional)	13
Motor Vehicle	3
Suffocation or Strangulation	2
Fire and Burn	2
Drowning	2
Firearm and Weapon	2
Other	2
Homicide	20
Firearm and Weapon	1
Child Abuse and Neglect	16
Other	3
Suicide	0
Undetermined	4
Total	**39**

(*Child maltreatment deaths identified by CRP for the year 2003 will not be reviewed by CRP until 2005, therefore, the data cannot be included in this report.)

While CDR teams may not have determined that maltreatment was the primary cause of death in over half of these cases (23), they did identify child abuse and neglect as a contributing factor to the death in eight of those cases.

When these cases are studied in the CRP process, it becomes apparent that deaths due to neglect are often not identified by the child death review process.

A Better Picture of Child Abuse and Neglect Deaths in Michigan

The 52 cases of maltreatment deaths identified for Michigan in 2002, have been determined to be the best available picture of child abuse and neglect because it incorporates multiple data sources for identification. These cases are profiled below. Maltreatment deaths identified solely through the CDR process can be found later in this report, under *Section 6: Homicide—Child Abuse and Neglect.*

Table 8
Michigan Child Maltreatment Deaths by Sex and Age, 2002

Sex and Age Group	2002	
	Number	Percent
Male	29	55.8
Under One Year	13	25.0
1 to 4 Years	12	23.1
5 to 18 Years	4	7.7
Female	23	44.2
Under One Year	15	28.8
1 to 4 Years	6	11.5
5 to 18 Years	2	3.8
Total	**52**	**100.0**

Table 9
Michigan Child Maltreatment Deaths by Race and Sex, 2002

Race and Sex	2002	
	Number	Percent
White	23	44.2
Male	16	30.8
Female	8	15.4
Black	28	53.8
Male	13	25.0
Female	15	28.8
Total	**52**	**100.0**

Table 10
Michigan Child Maltreatment Deaths by Person Who Inflicted Injury, 2002

Perpetrator	2002	
	Number	Percent
Mom	27	51.9
Dad	7	13.5
Parent's Partner	7	13.5
Both Parents	4	7.7
Other Relative	3	5.8
Parent and Parent's Partner	2	3.8
Step Parent	1	1.9
Foster/Adoptive Parent	1	1.9
Total	**52**	**100.0**